

ECONOMIC GEOGRAPHY OF EUROPE

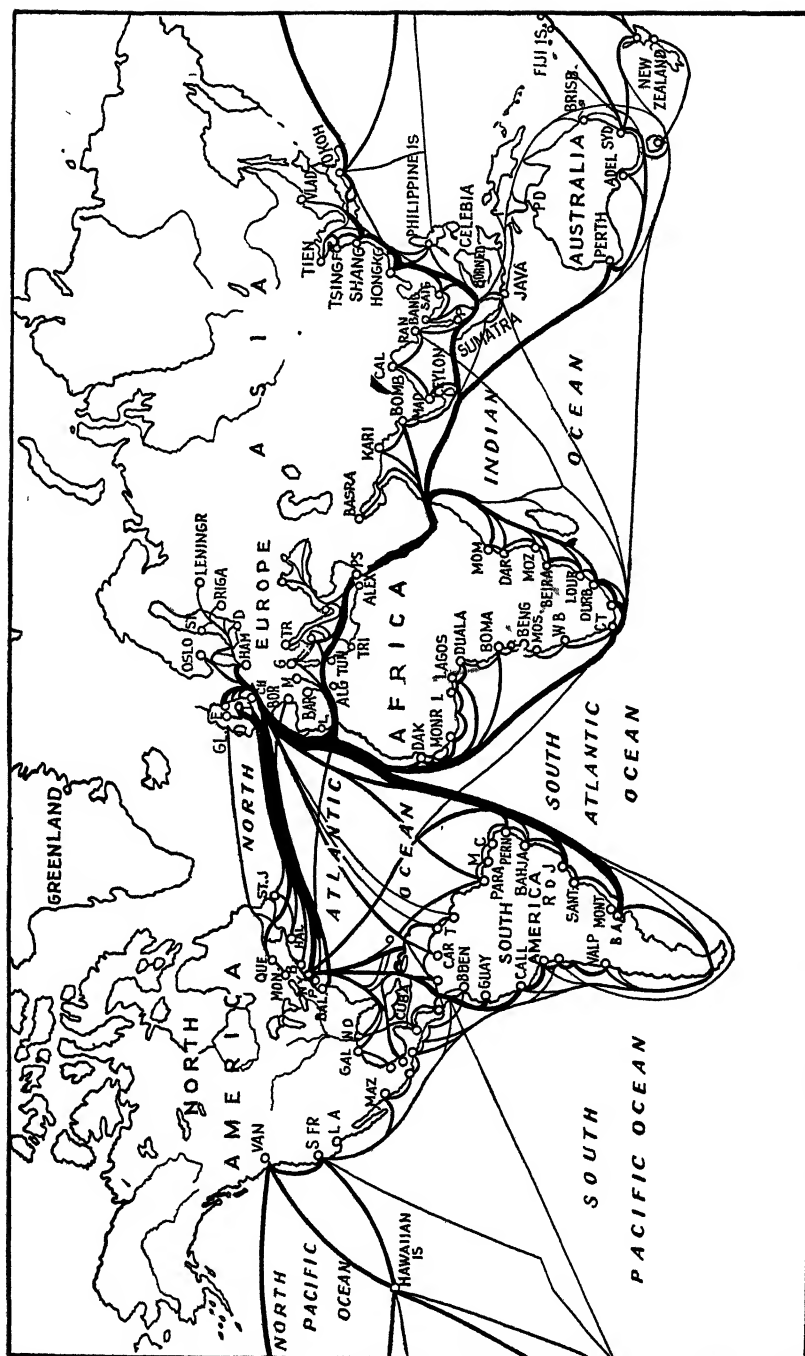


Fig. 1.—Shipping routes of the world. Width of the lines and bands are proportional to the tonnage (After Friedrich, 1926; from Bowman's *The New World*, 4th ed., 1928)

(Frontispiece)

ECONOMIC GEOGRAPHY OF EUROPE

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PREFACE

The lack of a textbook on the economic geography of Europe adapted to the use of American collegiate students is one that has been keenly felt by those called upon to teach an introductory course in this subject. American geographers have long hoped that Europeans would supply a suitable textbook, just as Europeans long waited for an American collegiate textbook on the geography of North America. The geography of a continent, is, however, such a comprehensive subject, and its adequate discussion presents such obvious difficulties to those most familiar with the subject, that no satisfactory textbook on Europe by Europeans has appeared. Hence it seemed desirable to have one prepared by Americans, rather than to wait indefinitely for a suitable book by Europeans. Two European authors, Jones and Bryan, similarly prepared the first collegiate textbook on the geography of North America.

This book represents a revision of material used by the authors in their university classes. Part I treats of the continent as a whole and Part II with the individual countries or groups of closely associated countries. The individual countries are the unit in most of the book because political and historical influences are powerful, especially in Europe. Most of the statistical data are, moreover, available by countries, not by geographic regions.

The spelling of the names of cities is that used officially in the country of their occurrence, as given on the 1929 National Geographic Society Map of Europe. The former names or the Anglicized forms are inserted in parentheses after the official name where first used in the text, if the official name is still rather unfamiliar in America.

The authors wish to acknowledge helpful suggestions from a number of geographers who have kindly read portions of the manuscript or proof: Professors Ellsworth Huntington of Yale University and O. D. von Engeln of Cornell University (Mr. Visher's chapters); Miss Muriel E. Poggi of the University of Illinois, and Professor R. H. Whitbeck of the University of Wisconsin. J. K. Rose of Indiana University read critically all of the proof. They are indebted to Professor A. K. Lobeck of Columbia University for permission to include, in the pocket, a copy of his *Physiographic Diagram of Europe*, which has proved of distinct aid to numerous students of the subject. The authors are under deep obliga-

tion to the many writers on the geography of Europe, especially those mentioned in the bibliographies, and to the numerous geographers and others who aided them personally during their reconnaissance studies in more than half of the countries of Europe. Acknowledgment is also gratefully made to the several individuals and firms who kindly permitted the use of photographs or other illustrations. The senior author wishes especially to acknowledge his great indebtedness to Mrs Elizabeth R Blanchard whose untiring labors have made possible the gathering of material and checking of his portion of the text.

Part I and three chapters of Part II, those on Belgium and the Netherlands, Russia, and Spain and Portugal, are by Mr. Visser, and the remaining chapters are by Mr. Blanchard.

W. O. B.
S. S. V.

URBANA, ILL.,
BLOOMINGTON, IND.,
March, 1931.

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PART I
EUROPE AS A WHOLE

ECONOMIC GEOGRAPHY OF EUROPE

CHAPTER I

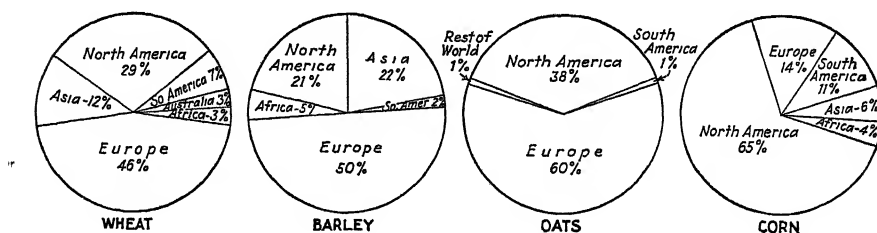
SIGNIFICANCE OF EUROPE

EUROPE COMPARED WITH THE REST OF THE WORLD

Although Europe comprises only about one-fifteenth of all the land, it contains about one-fourth of the people, or nearly four times its ratio. It produces more than one-half of all commodities, and deserves credit for a considerable fraction of those produced elsewhere and then sent to Europe. It has accumulated perhaps three-fourths of the tangible wealth of the world, and invested it in all lands, with the result that Europeans largely own many of the mines, railroads, and other improvements, and indeed a considerable part of the more valuable land itself, in the other continents (Fig. 125). The annual increment of wealth made in Europe and by European investments elsewhere is much more than half of the world's total, for most non-Europeans accumulate little and are almost satisfied merely to be no worse off financially at the end of the year than they were at the beginning (Fig. 145). As a result of this disparity in energy and thrift, Europe has been until recently the one continent where extensive surplus funds could be obtained for constructive development anywhere (Fig. 17). Although since 1914, citizens of the United States have loaned vast sums in Europe and elsewhere, experts estimate that the loans of Americans lack a good deal of equaling the total of European investments even in North America.

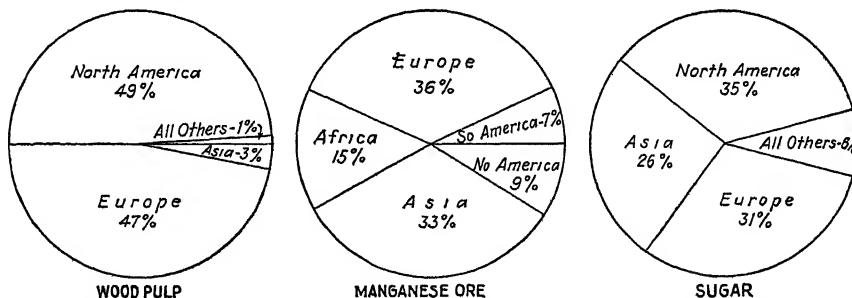
Europe Produces Much of the World's Output.—The significance of Europe in respect to production is suggested by the share it has in the output of various important commodities. Europe produces more than all the rest of the world combined of numerous valuable items. For example, it produced in 1928 more than four-fifths of the rye, potatoes, beet sugar, flax fiber, lignite, potash and pyrite; more than one-half of the oats, barley, grapes, apples, olives, milk, ships, rayon, synthetic dyes, iron ore, steel, aluminum, nitrate and phosphate fertilizer (Figs. 2 to 8). It produced practically one-half of the world's coal, horses, wheat, wood pulp, and cement, and more than one-third of the swine,

sheep, paper, and power derived from falling water (Figs. 9 to 15). If the contribution of the United States be excepted, Europe produces more than all the rest of the world of a variety of additional things including lumber, poultry, beef, corn, automobiles, locomotives, textiles, electrical and railroad equipment, and most other types of machinery (Figs. 58 to 64). Until very recent years it had a similar rank for copper, lead, zinc, and petroleum (Chap. V, Minerals and Water Power).



FIGS 2 to 5 —Percentages of world's production of important items, 1927 or 1928

Europe's High Commercial Rank.—Besides an exceptionally large domestic trade within most of the countries, Europe carries on more than half of the foreign trade of the world. In 1928 the foreign commerce of each of the continents was, in billions of dollars, approximately as follows: Europe, 35, North America 14, Asia 9, South America 3, Australia 2, Africa 2 (Figs 13 to 16). Furthermore, most of the foreign commerce

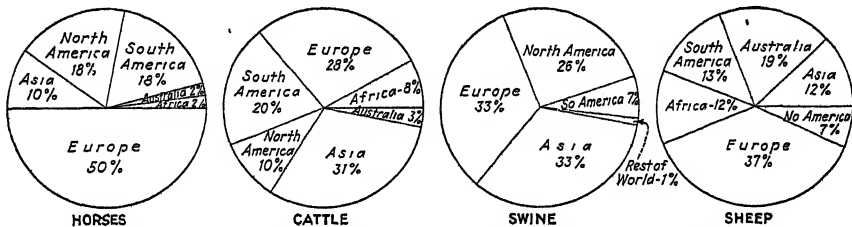


FIGS 6 to 8 —Percentages of world's production of other important products, 1927 or 1928.

of the other continents is with Europe (Chap. IX, Commerce). The total commerce, within the various countries as well as between the countries, of Europe is far greater than of any other continent with the possible exception of North America.

Modern Civilization Essentially European.—The higher civilization of almost all of the world except eastern and southeastern Asia is European or slightly modified European, and nearly all modern advancements in Asia are directly attributable to European influences. Many centuries ago Asiatics and Africans made, it is true, very important

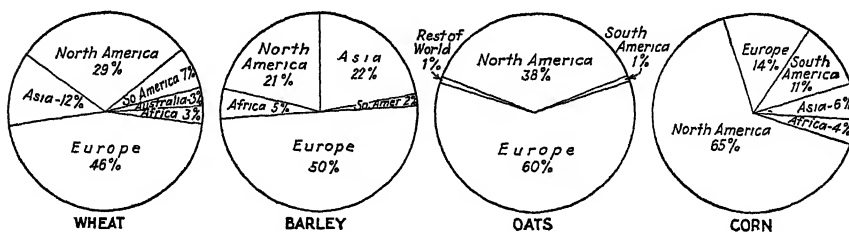
contributions to the development of civilization, but in the last 1,000 years or more they have done little to influence other continents except indirectly. Europeans, on the other hand, have explored all the seas and the lands, have learned to extract and use most of the minerals, and have selected, improved, and spread the use of superior plants and animals. The appearance of the landscape of a large proportion of the world has been profoundly altered as a result of their activities. Forests have been cleared away and replaced by crops, grasslands have been plowed, marshes drained, new plants and animals introduced, and the human population sharply changed racially. Not only have Europeans and their descendants colonized a large share of the lands, but they still control most of them politically and dominate the remainder (Figs. 141, 142). About 90 per cent of the land is governed by Europeans or descendants of Europeans, and fully 70 per cent of the world's population is under their direct political control. Furthermore, Europe is strongly in the lead in respect to several types of international agreements and organizations.



Figs 9 to 12 —Percentage of world's total live stock by continents, 1927

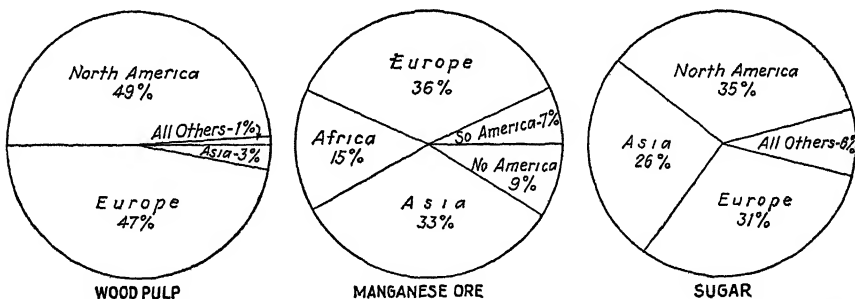
Reasons Why Europe Is Not Fully Appreciated.—Europe has been so extremely significant that a detailed study of its contributions and of the various regions where they were made—in brief, of the conditions affecting Europe—is of interest to all who desire to be well informed. Theodore Roosevelt's statement, that whereas the North Atlantic had been the important ocean in the sixteenth to nineteenth centuries, the Pacific would take preeminence in the twentieth, suggests that he thought that Europe would cease to be relatively highly important. Many other people have also been much impressed by the enormous size of the Oriental population, and have believed that soon Asia will outdistance Europe. But as yet there is almost no indication that this is occurring. The Oriental peoples are progressing appreciably only so far as they adopt European methods and ideals. Hence the influence of Europe is growing instead of waning. In fact it is growing probably more rapidly than ever before, now that communication has become so efficient, and almost all peoples of the world are bound somewhat together (Figs. 18 to 20). Part of the recent growth in European influence is, however, readily misunderstood. For example, what is the desire of India and Egypt for

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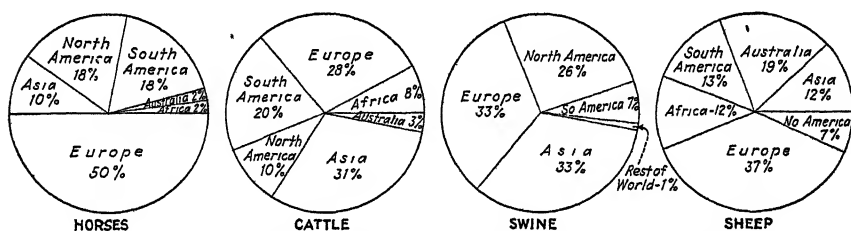


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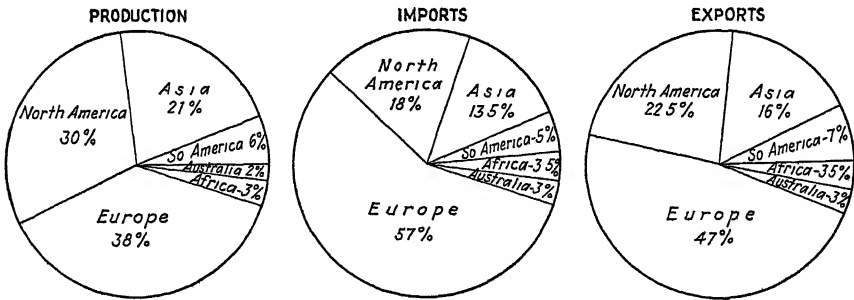
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self-rule but a clear evidence that they have at last absorbed one of the fundamental European precepts? Another misconception has reduced the appreciation that Europe's influence is growing. It is the failure to realize that the United States is as truly an offshoot of Europe as are Canada and Australia. Although we consider ourselves independent, we



FIGS 13 to 15—The shares of the continents in the world totals of production, imports, and exports, 1927

still receive much from Europe in the form of new ideas as well as of goods

Not only is Europe the chief buyer of our exports, and the source of more of our imports than any other foreign continent (Fig. 121), but far more Americans visit Europe than visit all other continents combined. Hence an understanding of geographic conditions in Europe will not

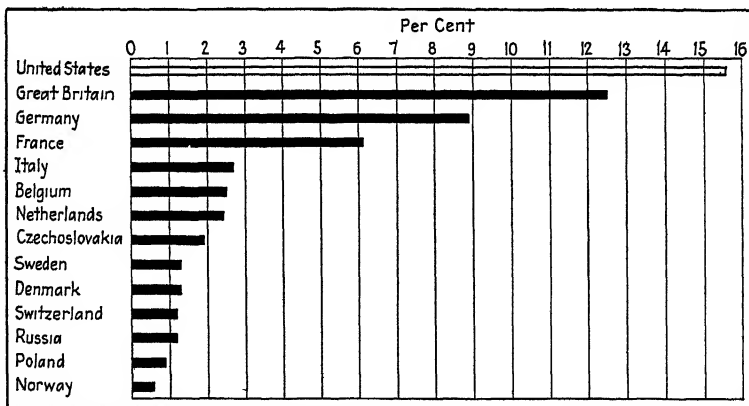


FIG. 16.—Foreign trade of leading countries, 1928.

only augment American appreciation of Europe and improve business relationships but heighten the pleasure of a large number of Americans.

Regional Contrasts in Importance.—Only a portion of Europe, however, has done much to influence the rest of the world. A considerable fraction has been not much more important than the more progressive

areas elsewhere; Japan, for example. The highly significant area is clearly revealed in Fig 21, which shows the distribution of civilization in Europe according to the opinion of the fifty authorities who responded to Ellsworth Huntington's request for their opinion on geographic variations in the degree of civilization. Note how the darkest shading indicates that the highest civilization centers around the North Sea, with a Baltic arm and a projection southward to the Mediterranean. Note, too, how regularly civilization declines as one goes away from this center in any direction. Northward toward Lapland the decline is most rapid, but southward it is almost equally sudden. Eastward it is also surprisingly apparent, while even toward the west it is in evidence. The map suggests that when we say "European," we often do not mean "pertaining to the entire continent of Europe." Our meaning really is "pertaining to the small part of Europe extending northeastward, northward, and westward from northern Italy to the Baltic, the North Sea, and the

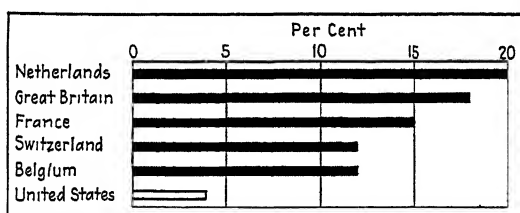


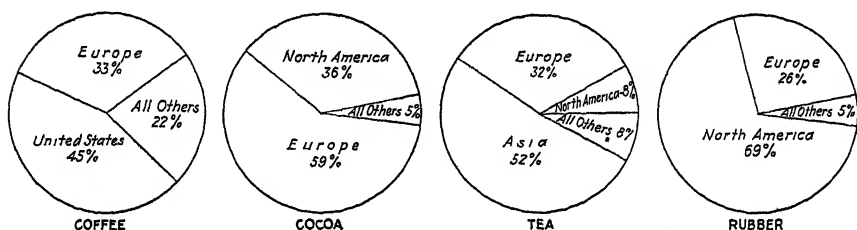
FIG 17—Approximate percentage of total wealth of certain nations which is invested in foreign lands, 1928

Atlantic, but with special reference to the regions around the North Sea." There the peculiar qualities of European civilization now reach their highest development (Fig 27).

EXPLANATIONS OF EUROPE'S DOMINANCE

Many theories have been advanced to explain the dominance of Europe and the prominence of the countries near the North Sea. The chief of these theories fall into three groups: geographic, ethnic, and historical. The chief geographic explanations are as follows: (1) It is often said that Europe owes its dominance to its latitude. Alone among the continents it penetrates only a little into the unfavorable latitudes of the depressing north or the enervating south (Fig. 1). (2) It is also said that the most essential feature in the supremacy of Europe and especially of the countries around the North Sea is their position in respect to the Atlantic Ocean and America. The degree of progress, it is claimed, is almost in proportion to the ease with which other parts of the world can be reached. Europe not only includes the center of the land hemisphere, but its position in respect to the Atlantic gives it access to the rest of the world by sea with the least possible hindrance. The

ocean also influences the climate favorably (3) Again, good authorities hold that the small size of Europe is one of its most valuable assets. Being small, all parts, instead of only a small proportion, are strongly affected by oceanic influences. Hence, in spite of its small size, it has a relatively large habitable area, for it is not hampered by great deserts like those of the neighboring continents of Asia and Africa, of Australia, or even of North America. Thus it is relatively easy for cultural progress to spread from one densely populated area to another (4) We are often told that Europe's dominance has been greatly aided by the fact that the continent is divided by its mountain ranges and the sea into many small units which, nevertheless, lie near together and are mutually accessible. The physiographic diagram, in the pocket, shows clearly many of these regions. (5) Of great importance, apparently, is the fact that Europe's shape is so unusual. It is, indeed, a great low peninsula rather than a continent and is itself largely composed of many smaller peninsulas. Thus, the sea penetrates far into the interior, the climate is ameliorated,



FIGS. 18 TO 20.—Consumption of tropical products, 1928, percentage of world's total

and trade and intercourse are fostered (Fig. 22). (6) From another point of view, the main geographic factor in putting Europe so far in the vanguard of civilization is its abundant supplies of the two most important minerals, coal and iron. This applies particularly to the countries around the North Sea where lies the world's greatest workshop. (7) Still another explanation is the climate. In no other continent is anything like so large a proportion of the area highly favorable both to agricultural prosperity and to human health and energy. (8) An eighth explanation is that the exceptional health and energy of the dominant part of Europe is the chief cause of the continent's high rank.

The Theories Compared.—These eight explanations sum up the chief geographical conditions which have been called upon to explain the dominance of Europe in general and of the North Sea regions in particular. The explanations appeal to each of the chief elements of physical environment, and in many cases call upon two or more at once. Thus, in the first explanation latitude is obviously a matter of location, but it has little significance except through its influence on climate. The second explanation also deals with location, but here latitude becomes a minor

factor and the location with respect to the ocean and the other continents, especially America, is the chief note. With the third, fourth, and fifth explanations the size, relief, and shape of Europe, that is, the form of the land and of its mountains, enter into the matter, but these conditions gain most of their significance in connection with the ocean on the one hand and with climate on the other. The sixth explanation pertains to minerals, but in other regions coal and iron have little effect on the inhabitants except where combined with certain other favorable conditions, such as favorable location and climate. The seventh explanation is purely climatic, but perhaps half of the influence of climate is exerted

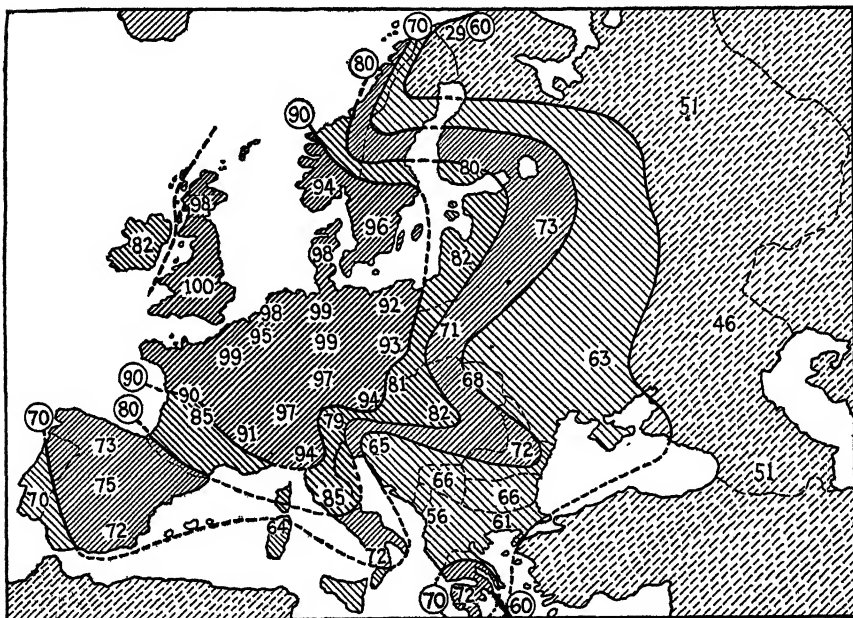


FIG. 21.—Distribution of civilization according to fifty competent Europeans, in percentage of the civilization attained in England (From Ellsworth Huntington, *Civilization and Climate*, Yale University Press, by permission.)

indirectly through plants and animals rather than directly upon man. Finally, the eighth explanation depends on climate, diet, advancement, and success. Thus it appears that according to their individual points of view, various authorities call upon each of the great elements of geographic environment to explain the dominance of Europe and the supremacy of the regions around the North Sea. The fact is that Europe, and especially northwestern Europe, is exceptionally favored in practically every aspect of geographic environment.

Europe's Favorable Latitude, Shape, and Size—A fuller statement of these advantages is appropriate. Some of them merit a whole chapter,

but others may be presented more concisely. So far as latitude is concerned, the location is better than that of any other continent, for the largest proportion is in middle latitudes, in the belt of the prevailing westerly winds where cyclonic disturbances are most numerous. In respect to size Europe is the smallest of the continents aside from Australia, and its small size has facilitated the exchange of goods and of ideas. Europe is also the most favored of the continents in shape, and would be almost ideal in this respect if Asia did not cut it off from the ocean on the east. In shape, as in size, an important advantage lies in bringing almost all parts of the continent near the sea, whereby the climate is rendered more favorable and transportation is facilitated.

Climatic Advantages.—Climatically Europe is also the most favored of the continents. No other has so large a proportion which receives appropriate rainfall for general agriculture. The area too dry for bountiful crops is very small, only a fraction the size of that of even North America. Indeed some geographers declare that no part of Europe is too dry

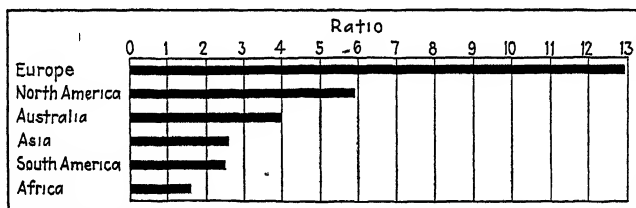


FIG. 22 — Coast-line ratio. 1,000 miles of coast per 1,000,000 square miles of area. (According to Herbertson.)

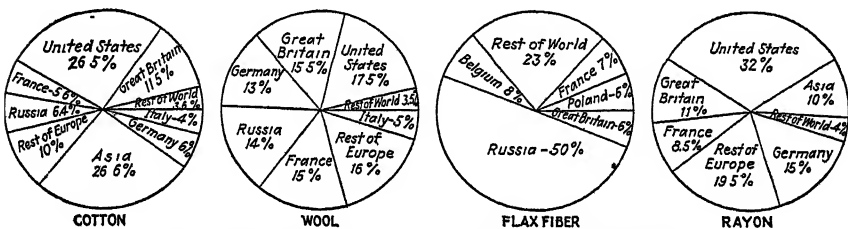
for some form of agriculture, that the driest sections, southeastern Russia and southern Spain, are relatively unproductive rather because the peoples of those areas have not had sufficient capital, knowledge, and experience to use such land. In parts of South Africa, Australia, and the western United States, where labor-saving machinery is extensively used, and water supplies are obtained from deep wells, equally dry land is more successfully used.

Another climatic advantage possessed by Europe is the large proportion of its area which has moderate ranges of temperature, sufficient to require numerous seasonal activities in preparation for the future, but not extreme enough to disarrange man's life too radically. Even in eastern Russia, where the extremes are greatest, they are less than in corresponding areas in North America and much less than in most of Asia.

Europe is fortunate also in that much of it enjoys frequent changes of weather. This is particularly true of the northwestern part, the region near the North Sea, where the people are exceptionally active. These changes of weather are produced by cyclonic disturbances, the more

severe of which are called storms. Relatively frequent changes of weather characterize all parts of the world which now have a high civilization, which suggests that such changes are stimulating. Obviously they introduce complications into the life of the people and put a premium on mental alertness and persistence. In regions which lack such weather changes, most of the people put off doing many things which it would be advantageous for them to do. The motto of many tropical people, where sharp changes of weather are relatively rare, has often been said to be "tomorrow, not today." Such a postponement is discouraged by the distinct seasonal changes of all parts of Europe and especially by the changes of weather, which are significantly most frequent in the most advanced areas. The intimate relations between climate and health are considered in Chap. II.

Advantageous Relief—The relief features of Europe are more favorable, likewise, than those of any other continent. As may be seen on the physiographic diagram in the pocket, no large part is conspicuously



FIGS 23 to 26 —Consumption of the chief textiles, 1928

cut off from the sea by high mountains, nor is it nearly so difficult to go from one part of the continent to another because of the mountains as is true in the other continents. The seriousness of the Andean and Himalayan barriers is so well known as not to require comment. Now that there are several railroads across North America, the effectiveness of the barriers imposed by the Appalachian and the several western ranges may be overlooked, but a comparison with Europe reveals how fortunate Europe is in this respect. The Alps, although their summits are higher than any peak in the United States, are crossed in a few hours by several railroads, and the highest elevations reached in the tunnels of the main lines are only about 2,300 to 3,800 feet, or less than half the elevations required in crossing the western United States or Canada. Even in Australia, where the mountains are not nearly so lofty as in Europe, they have imposed a more serious barrier by their very steep eastern slopes. Indeed, even the hardy explorers failed for decades to find a way up to the plateau from the narrow eastern coastal strip. In Africa much of the area is a plateau, with the result that in the lower courses of even the largest rivers there are rapids and falls which have

interfered with penetration. Also in the better subtropical parts of the continent, both at the north and at the south, steep and lofty mountains seriously interfere with travel between the coast and the interior.

Valuable Water Gaps.—In Europe, on the other hand, not only are the chief rivers navigable for relatively great distances, but they have cut water gaps which serve as outlets for most of the areas which are nearly surrounded by mountains, thus greatly reducing their isolation. This is conspicuously true of the Swiss Plateau where the Rhine and Rhone afford outlets on nearly opposite sides. It is true of Bavaria, with the Rhine and the Danube; of Bohemia, with the Elbe and the Morava, and of the Hungarian Plain with the Iron Gate of the Danube.

Routes Leading to the North Sea—A special respect in which the relief of Europe favors the North Sea area is the way several natural routes lead toward it. The north European Plain extending from Russia westward, becomes narrowest in Belgium, thus concentrating rail traffic on the shores of the North Sea. The Seine, Elbe, and especially the Rhine also direct traffic from central Europe to the same region. The Rhone and the lowland of western France lead toward the same area. The Baltic, helped by the Kiel Canal, contributes another stream of traffic, and through the English Channel come numerous ships from all the seas to this area, which, moreover, is at the center of the land hemisphere.

Great Mineral Wealth.—Only North America among the continents yields more useful minerals than Europe. Furthermore, North America's great mineral wealth was not drawn upon appreciably until after Europe had attained a conspicuous leadership in the use of minerals. The result is that until very recently North America frequently has contributed mineral substances to Europe instead of competing with it. In fact the mineral wealth of nearly the entire world has been exploited by Europeans, and, except for the part recently taken by the United States, the minerals have largely flowed promptly to Europe to be fabricated and mostly used there. A small part, however, has been exported at a large profit, perhaps to the area of its original production, as, for example, tin cans to the Singapore region for canning pineapples.

Favorable Distribution of Minerals.—The mineral wealth of Europe is widely distributed, but in coal, iron, and potash especially, and formerly also in lead, zinc, and tin, the area near the North Sea has been particularly rich. Coal fields extend, with some gaps, from southern Scotland and northeastern Ireland south across northern England and Wales. They reappear again in northeastern France and extend into Belgium, the Sarre (Saar) basin, and the great Ruhr coal field of western Germany. The coal-bearing formations extend eastward on the north side of the Carpathians and lesser ranges to the Donets field of Ukraine, the source of nearly all of Russia's coal. The Silesian coal field of south-

east Germany and Poland is in this belt, and the coal of Bohemia is a southern outlier. The rest of Europe has little or no good coal, but the abundant supplies just mentioned still yield almost half of the world's output. During the nineteenth century they provided two-thirds or more of the world's total. Formerly, near the coal on the western part of this zone, there were valuable deposits of iron ore as well as limestone for use as a flux. This condition together with the large local market, the energy and inventiveness of the people, and the exceptional opportunity to export led to a great development of the manufacture of iron and steel. The richer iron deposits have largely been depleted, except in and near Lorraine, France, where the supply is still very large. Furthermore, bountiful supplies of iron ore are found near the coast in Spain, northern Sweden, and Spitsbergen. Moreover, not far away in north Africa, Newfoundland, and Cuba, other deposits have been extensively and cheaply mined and shipped to Europe. These conditions have enabled Europe to continue to increase its output of steel.

Racial Strength—Western Europe, particularly the North Sea region, has been the scene of the most extensive commingling of the three chief subraces of the Caucasian peoples, the fair Nordics, the brunet Mediterraneans, and the round-headed, brown- or gray-eyed Alpines. As each of these peoples has characteristics of great value, it has been assumed that the region where they have commingled most has been most favored racially. Ethnologists declare that very few persons whose ancestors have long lived in that favored area are pure representatives of any one of these subraces. Certain it is that most of the men who did much to advance civilization were mixtures of two or even three of these stocks, each of which contributed traits which helped make these people exceptionally strong. The Nordic traits of great energy, exceptional inventiveness, and conspicuous power of leadership and organization have often been especially mentioned as valuable contributions to the inheritance. Another characteristic of Europeans, which some experts say is due to biological mixing of closely allied peoples, and which others give as a Nordic trait, is great variability, which leads to the birth of men of genius. Unquestionably Europe has yielded many more men who have proved themselves geniuses than has Asia or Africa.

Non-geographical Influences.—The importance of the geographic explanations of Europe's dominance must not cause us to neglect the historical explanations. A large body of students, especially historians and anthropologists, hold that neither the purely geographic factors nor even the semi-geographic factor of race is mainly responsible for the present dominance of Europe. They point to the historical evolution of religion, philosophy, science, literature, art, politics, business, and war as the primary factor. Along all these lines, they say, the direction and speed of evolution depend largely upon accidental circumstances,

such as the particular line in which a man of genius happens to work, and the degree to which his new ideas fit those of his times and thus are accepted, or fail to fit and hence are rejected. This is doubtless partly true, but it is likewise true that geographic environment on the one hand and race on the other are equal partners with human ideas and institutions in bringing the world to its present position.

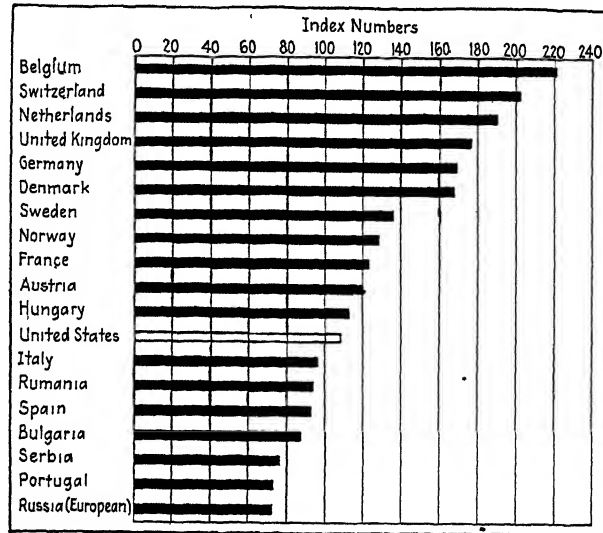


FIG. 27—Contrasts in productivity of countries (prewar) (From *Yearbook of the U. S. Department of Agriculture*, 1921)

This outline of the many and diverse factors suggested as explanations of European dominance illustrates the complexity and also the fascinating character of the problem of why Europe has been and is so significant.

CHAPTER II

CLIMATE, CLIMATIC REGIONS, AND HEALTH

Although the chief features of the climate have been given in Chap. I, climatic influences are so important that a more detailed discussion is desirable.

Temperature Conditions.—Almost all parts of the world are handicapped during at least part of the year by being either too cold or too hot. According to Ellsworth Huntington, a month is colder than is ideal if the average temperature for the month falls below 0°C . or 32°F .

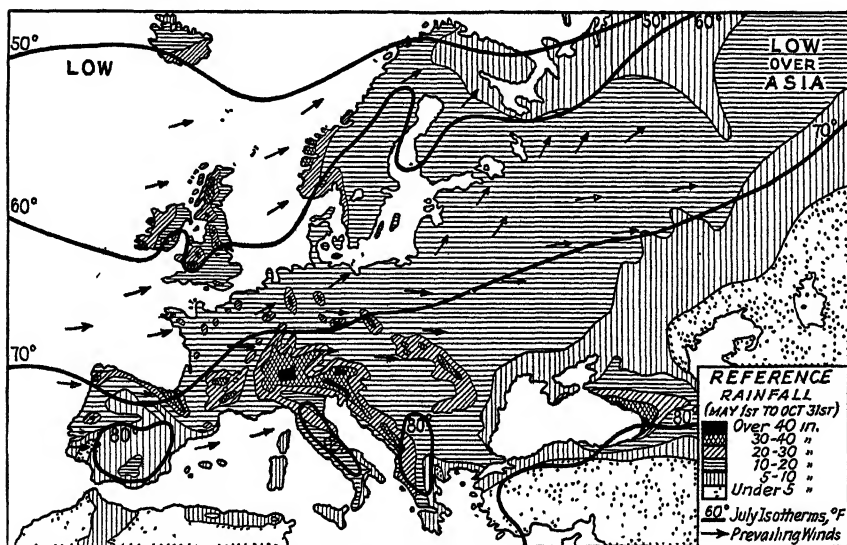


FIG 28—July temperatures, prevailing wind directions, and the total summer (May to October, inclusive) rainfall. (From D. H. Smith)
 ("Low" over northwestern Asia and near Iceland refers to pressure)

and warmer than ideal if the temperature of the month averages above 21°C . or about 70°F . Hence, in most of the half of the world between the thirtieth parallels, nearly all of the months are too hot, while in high latitudes most months are too cold. In middle latitudes many regions are too hot in summer and too cold in winter. In July most of Europe south of the mountain chains from the Pyrenees to the Carpathians is too warm, as is southeastern Russia. The rest of Europe, however, has an average temperature below 70° (Fig. 28). In general the July

isotherms run roughly east and west, but a given latitude is warmest in the east, that is, in the interior, and coolest in the west near the Atlantic Ocean, and hence the isotherms are farthest north in the interior. This tendency toward high temperature in the interior is also conspicuous in Spain, the interior of which has average temperatures above 80° in July. The January isotherms (Fig. 29) run, however, roughly at right angles to those of July, especially in the west. Because the isotherms bend so far northward in western Europe, instead of following the normal east and west course, nearly half of the continent, and by far the more populous half, has an average temperature above the freezing point in January.



FIG 29—January temperatures, average wind directions, and winter precipitation
(From D. H. Smith)
("Low" and "High" refers to pressure)

The factors which raise much of Europe's temperature to such a beneficial degree in winter and keep it down in summer are the winds which blow rather steadily from the Atlantic. In winter, as Fig 29 indicates, they usually blow from the southwest, or in the interior, from the south, bringing the warmth of lower latitudes as well as the tempering influence of the ocean. The North Atlantic is, furthermore, warmer than any other ocean in winter in these latitudes, because of the North Atlantic Drift, which raises the surface temperature in latitude 40 an average of a degree or two, and in latitude 55, four or five degrees. In summer, on the other hand, the normal direction of the winds is from the west and the then relatively cool ocean (Fig. 28).

Cyclonic Storms.—An important influence on the temperatures, and also on the rainfall, is the cyclonic disturbances, the more intense of which are known as storms (Fig. 30). They cause frequent variations in the temperature and other elements of the weather from day to day, and also induce a large share of the rainfall. Indeed when the disturbances are absent for a time, the changes of temperature are gradual and slight, and little or no precipitation falls except on the windward slopes of the steeper mountains. Hence without them much of Europe would have monotonous temperatures and would be too dry for general agriculture. Southern Europe illustrates this well. In summer when the

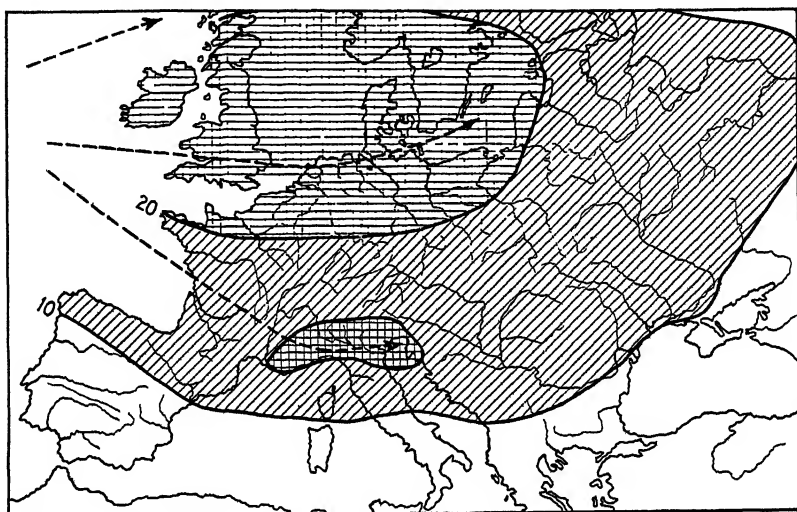


FIG 30—Frequency of cyclonic disturbances and (dashed lines) chief storm tracks. Crossed areas have more than 20 cyclonic centers crossing each year, on the average, unshaded areas have less than 10. (*After Kullmer*)

subtropical belt of high pressure prevails, few cyclonic disturbances from the west penetrate the Mediterranean region, with the result that the weather is persistently hot and there is little rainfall (Fig. 28). In winter, however, when the high-pressure belt lies farther south, over northern Africa, cyclonic disturbances often traverse the Mediterranean, causing invigorating changes of temperature and inducing bountiful rains (Fig. 29). In summer the disturbances pass eastward north of the Alps and bring considerable variability and rainfall to Russia. Eastern Europe is a region which has long cold spells in winter and receives much less winter precipitation than does western Europe, largely because the Asiatic high-pressure area extends into Russia and interferes with the eastward advance of the cyclonic disturbances, diverting them to the north or the south or greatly weakening them.

Rainfall.—Although the amount of rainfall varies closely with the frequency and intensity of the cyclonic disturbances which induce it, the distribution of rainfall over the continent as a whole (Fig. 31) corresponds less closely with the distribution of storminess (Fig. 30) than might be expected. The regions having most frequent storms do not have as much more rainfall than the areas having fewest storms as the number of storms would suggest. This is because the amount of moisture that the air (or, more exactly, that space) can hold increases sharply with higher temperatures, doubling for each 10° C. (18° F) rise. Hence warm air when it is saturated contains vastly more moisture than does cool air

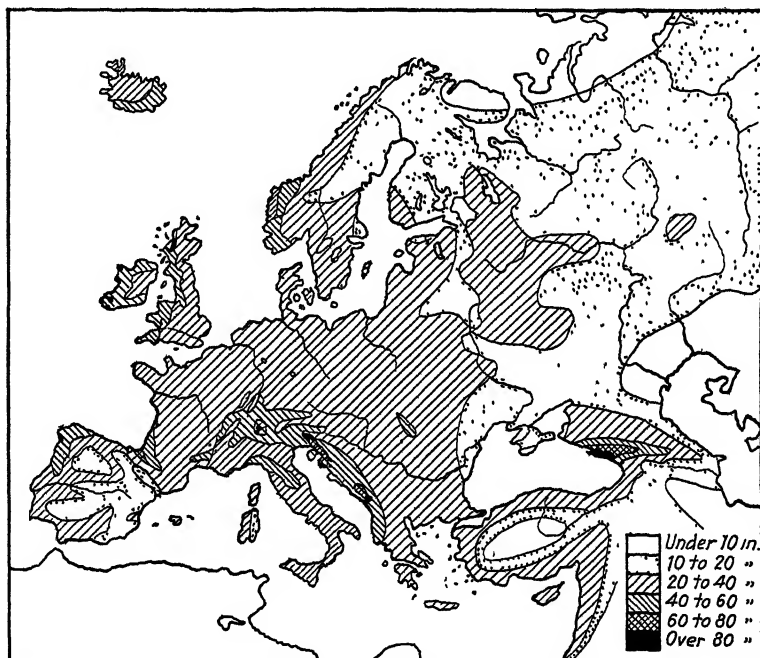


FIG 31.—Distribution of rainfall, average annual totals.

and yields much more rainfall when caused to ascend by a storm and forced to give up its moisture. Consequently, in winter when both southern and central Europe are crossed by frequent storms, the precipitation is much less in the northern region than in the southern. For example, during the six cooler months the rainfall of London is 275 mm. (about 11 inches), Paris 259 mm., and Berlin 246 mm.; while that of Lisboa (Lisbon) is 547 mm. (about 22 inches), Roma (Rome) 502 mm., and Athenai (Athens) 280 mm. Even Athenai has more than any of the northern cities. In spite of this, the northern region is the moister because its lower temperature causes less evaporation than in the rela-

tively warm southern portion of Europe, and hence the soil dries slowly. During the four warmer months from June to September, however, which are much more important to agriculture, central Europe has numerous cyclonic storms while the southern peninsulas have very few. Consequently we find the following contrast in rainfall: London has 224 mm (about 9 inches), Paris 210 mm., and Berlin 236 mm, whereas Lisboa has 65 mm. (about 2.5 inches), Roma 148 mm and Athenai only 54 mm.

Contrasts in Rainfall.—The figures given in the preceding paragraph bring out not only the difference in rainfall between the central and southern parts of Europe but between the west and the east. This appears more clearly in Table I, where temperature as well as rainfall is considered.

The table is divided into two parts, one concerning cities located within one degree of the latitude of Greenwich, which is approximately 52° N., and the other concerning places within one degree of latitude 38° N. In both parts the places are arranged in order from west to east, as appears from the longitude in column *A*. Column *B* shows the total rainfall in millimeters.

Notice that in Part I, where no bodies of water counteract the influence of the continent, there is a steady diminution of total rainfall eastward. Orenburg, at the eastern edge of European Russia, has only one-fourth of that of Valentia on the southwest coast of Ireland, and only 63 per cent of that received by Berlin. The southern group of cities, of Part II, shows a similar decline in rainfall toward the east, but it is less marked and less regular because we are here dealing with peninsulas and islands, and the water between them prevents the continental influences from producing their full effect. The next column *C* shows the rainfall during the warmer half of the year, April to September, while *D* states what percentage this is of the total precipitation. Column *D* is highly significant. Notice that in the higher latitudes the rainfall of the regions near the Atlantic is usually divided nearly equally between the warmer and colder halves of the year, Valentia having 48 per cent in the warmer half and London 51 per cent. Eastward, however, as the seacoast is left behind, the proportion received in the warmer half year rises until at Warszawa (Warsaw) 76 per cent is received. In Orenburg, June and July yield practically twice as much as February and March. In summer the prevalence of low pressure over the heated continent permits the storms from the Atlantic to continue eastward into Asia. In winter they are normally prevented from doing this because of the Asiatic area of high pressure. In Part II of the table, however, the subtropical regions in latitude 38 degrees show an irregular decline in the percentage of summer rainfall from west to east. This is associated with the fact that the subtropical belt of high barometric pressure interferes with the penetra-

tion of the cyclonic disturbances, few of which then travel far in this more southern region. Some, however, enter it not only from the west but also from the south and rarely from the north.

Contrasts in Temperature.—Turning now to the part of the table dealing with temperature, we find that from the coast inland the mean temperature for the year decreases steadily in latitude 52 degrees. The difference between Valentia and Orenburg, 65 degrees of longitude farther east, amounts to no less than 17° F. or almost 10° C. despite the sameness

TABLE I—CLIMATIC COMPARISON BETWEEN LATITUDES 52 AND 38° N

Cities	Longitude	Rainfall			Temperature, degrees Fahrenheit			
		Total, mm	Apr–Sept		Mean, annual	Mean, Jan	Mean, July	Difference between Jan and July
			Mm	Per cent				
I Places close to Lat. 52° N	A	B	C	D	E	F	G	H
Valentia	10° W	1,442	700	48	51	45	59	14
London	0°	616	311	51	50	39	63	24
Berlin	13° E	577	323	56	48	30	67	37
Warszawa (Warsaw)	21° E	475	349	76	46	26	66	40
Saratov	46° E	402	267	65	42	14	71	57
Orenburg	55° E	366	190	52	39	2	72	70
II Places close to Lat. 38° N								
Lisboa	9° W	744	181	24	59	50	70	20
Palma	3° E	480	172	36	65	51	77	26
Catania	14° E	625	126	20	64	51	79	28
Athenai	24° E	394	95	24	64	48	80	32
Urfa	37° E	391	56	14	65	39	89	50

NOTE—25.4 mm = 1 inch, 101 mm = 4 inches

of the latitude. Columns *F* and *G* indicate that this is largely due to the extremely cold winters of the continental interior. During the cold season the continental high pressure effectually keeps out oceanic winds, and hence eastern Europe and still more the great interior of Asia grow colder and colder until the returning sun is again able to warm them. In summer, on the other hand, the sun heats up the land much faster than the sea. Hence column *G* shows that the July temperature becomes higher as we proceed inland. The rise, however, is not nearly so rapid as the decline of temperature in winter in the same regions, the average

temperature differences between Valentia and Orenburg being 13° F. in July but 43° F. (24° C) in January

In latitude 38 degrees the change of temperature as one proceeds eastward is much less than the change in latitude 52 degrees because all the stations are near the sea. The July temperatures increase, however, with increased distance from the Atlantic, which remains cooler than the Mediterranean.

Finally, the last column in the table shows how the difference between January and July increases steadily and sharply as one goes eastward away from the ocean, in latitude 38 degrees and especially in latitude 52 degrees.

Great Oceanic Influence.—Table I reveals the fact that the climate of Europe is dominated by oceanic influences. This oceanic quality, through its effect on health and on agriculture, is presumably one of the greatest reasons for western Europe's supremacy.

Another way in which Europe is fortunate climatically is in having representatives of a large share of the world's climatic types and storms. It has been of advantage to the numerous sailors and colonists from northwestern Europe, when they went to other regions, that they were already acquainted with strong winds, including hurricanes and tornadoes, with waterspouts, thunderstorms, lightning, hail, snow, sleet, ice, and with sudden changes of temperature.

CLIMATIC PROVINCES

The preceding discussion of the chief characteristics of the climate and the factors affecting it has prepared the way for a division of the continent into climatic provinces. In four great regions or provinces, climatic conditions are sufficiently uniform throughout, except in and near the mountains, so that in a discussion no more detailed than this they can be treated as units. These provinces are (1) the subarctic or tundra province, (2) the marine or oceanic province, (3) the continental province, and (4) the Mediterranean province. These are shown in Fig. 32.

The reasons for the choice of the boundaries will aid in appreciating important characteristics of the provinces which they delimit. The southern limit of the subarctic province, the line *AB*, follows the northern margin of considerable growth of the cereals, and hence of ordinary agriculture. The central line *CD*, which extends north and south from the western Baltic to the northern part of the Balkan Peninsula, separates the marine, or oceanic, province from the continental. To the west of the line the contrast in average January and July temperatures is less than 40° F., while to the east it is more than 40°. The third line *EF* runs nearly east and west from the Atlantic coast of Spain to the Caucasus Mountains and is the line where the warmest three months have an average temperature of 70° F. North of it, while a single month

may be hot, the summer as a whole is moderate. It represents the southern margin of the marine and continental provinces

The Subarctic or Tundra Province.—The northern fringe of Europe is a bleak region. Except in a few favored spots the average summer temperature fails to rise as high as 50° F. for as much as three months, although it occasionally is hot for a few days. In the winter even the warmest parts average below 12° F. for about three months. Storms are frequent at all seasons and killing frosts occur during nearly every month in the year. In summer the storms are invigorating, but in winter they are often so fierce as to be very unwelcome to the few inhabi-

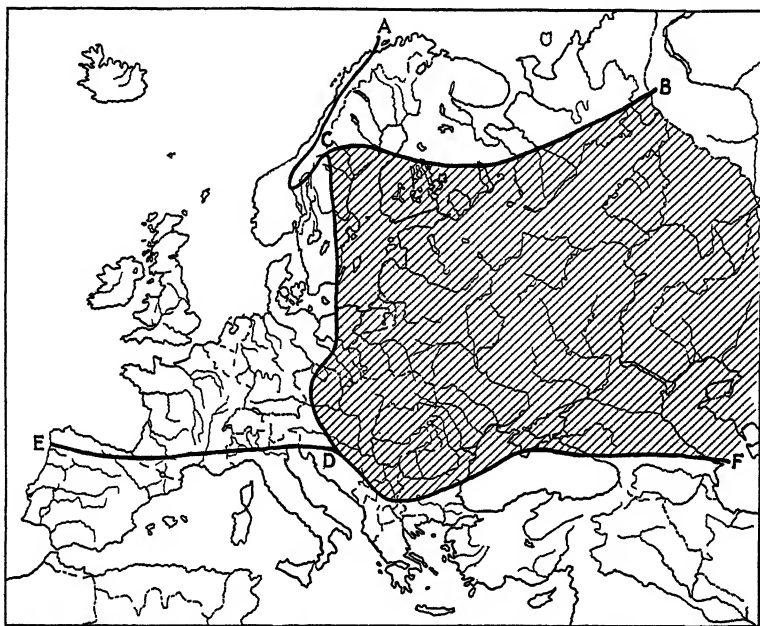


FIG 32—Generalized climatic regions lined = continental, northern = subpolar, southern = Mediterranean, northwestern = marine.

tants, who are benumbed by the biting winds. Although the total precipitation is small (less than 10 inches), it is sufficient to keep the ground filled with moisture because the temperature is low. Whenever thawing temperatures occur the surface is wet because of the ice in the soil. The outdoor air is too cold to hold much moisture, and hence in heated homes its relative humidity is far below the optimum for mankind. This is decidedly the least important part of Europe and need seldom be mentioned in this book.

The Marine Province.—This is the most important province in modern Europe. It includes the areas where the people are most progressive, and where useful minerals are obtained most abundantly. Its countries

have the largest populations and the most commerce. Although this province extends from the coast of northern Portugal in latitude 42 degrees northward to the Arctic Circle on the coast of Norway, the difference in average temperatures is relatively small. The reasons for this remarkable fact were mentioned above when the isothermal maps were being discussed. Although Bordeaux in southern France and Bergen in southern Norway lie about as far apart as Key West, Florida, and New York, their average temperatures differ only about 3.6° C. (6.5° F.) in January, and 5.7° (10.3° F.) in July, compared with differences of 21.4° C. (38° F.) and 5.6° C. (10° F.) for the two American cities. In the interior of this province the differences between the north and the south are correspondingly small. For example, in January Wien (Vienna) is only 1.3° C. (2.3° F.) warmer than Stockholm, and in July 2.9° C. (5.2° F.) warmer; whereas, New Orleans, which bears a relation to Chicago like that of Wien to Stockholm, is 16.3° C. warmer than Chicago in January and 5.0° in July. Moreover, aside from the sparsely inhabited elevated parts of the northwestern highland, the important interior parts of the province lie close to sea level in the north, for example, in southern Sweden, but rise to altitudes of two or three thousand feet in many parts of the south, as in Bavaria and central France. Thus the effect of relief partly counteracts that of latitude. The result is that the marine province is remarkably uniform in temperature in proportion to its size.

Precipitation.—In respect to precipitation the oceanic province is more varied than in respect to temperature, but it possesses certain marked characteristics which are common to all parts. Chief of these is the fact that there is rain enough at all seasons, and that the heaviest precipitation takes place in the summer or autumn. The varied relief of the province, however, causes many of the western slopes and highlands to receive two or three times as much rain as the eastern lowlands. For example, on the western side of Wales, Ireland, northern England, and especially Scotland there are considerable areas where the rainfall is over 80 inches per year, while a little farther east in each of these countries certain areas have less than 30 inches (Fig 31). Between western Norway and eastern Sweden the contrast is still greater, the extremes being about 120 and 16 inches. Similar but less extreme conditions prevail in many parts of France and Germany. Thus the relief exercises an important control over rainfall throughout the province. Yet almost nowhere does the precipitation fall so low as to greatly diminish the capacity of the country to support human life. In fact in this province the places where man finds it hardest to get a living are the wet areas rather than the dry.

In general the marine province is characterized by a summer temperature which is high enough for profitable agriculture but not too high for

human health, and by a winter temperature which is low enough to give the stimulus of marked seasonal changes but not low enough to be strongly depressing. Cyclonic storms occur almost as frequently as in the northeastern United States, and although along the coasts they are most frequent in winter, throughout the year they bring enough rainfall and sufficient variability for both man and agriculture.

The marine province was originally almost wholly forested, in the north with coniferous trees but in most of the region by a mixed growth of broad-leaved trees like the oak, beech, elm, maple, chestnut, and birch, and a fair sprinkling of pines, firs, and other conifers. Bushy areas were numerous, but on the whole the forests contained much less underbrush and were easier to penetrate than the forests of somewhat warmer or colder regions. Today most of the area has been cleared and a large part of the remaining forest is cared for in accordance with a highly advanced forestry policy.

The Continental Province.—The eastern climatic province includes the eastern half of the continent and is mostly a lowland, as the physiographic diagram, in the pocket, makes strikingly evident. Only in the Carpathians does relief play an important part, although the Urals rise high enough so that they contain only a few farmers. They would contain still fewer if the mining towns did not make it worth while to carry on agriculture in places where otherwise it would not pay. The summers of the continental province are sufficiently warm for agriculture, except occasionally at the north. They are seldom hot enough except at the south to be injurious to man (Fig. 28). They are also moderately rainy except in the southeastern section near the Caspian Sea, for cyclonic disturbances pass over the province fairly frequently in summer. In winter, on the other hand, the temperature is very low (Fig. 29). In the warmest portions it averages like that of New York City and in the coldest like that of the Hudson Bay region. Even in southern Russia snow covers the ground for an average of three months a year. During the long cold season the air contains so little moisture as to be harmfully dry for man, animals, and plants. A special feature of the climate of this province is the large percentage of the precipitation received in summer. One summer month, usually July, normally receives as much, or nearly as much, as February and March together. The scanty precipitation of the spring and fall is a major reason why the southern area, where the temperature is often high in those seasons, is grass covered rather than forested. Grasses can withstand drought much better than trees. In the north, although the total precipitation is little or no greater, the lower temperatures and consequent reduced evaporation decrease the amount of water needed. Hence forests prevail, deciduous toward the south and coniferous toward the north, with a transition zone between.

The Mediterranean Province.—This climatic type is also known as the “subtropical,” and its counterpart in North America is frequently

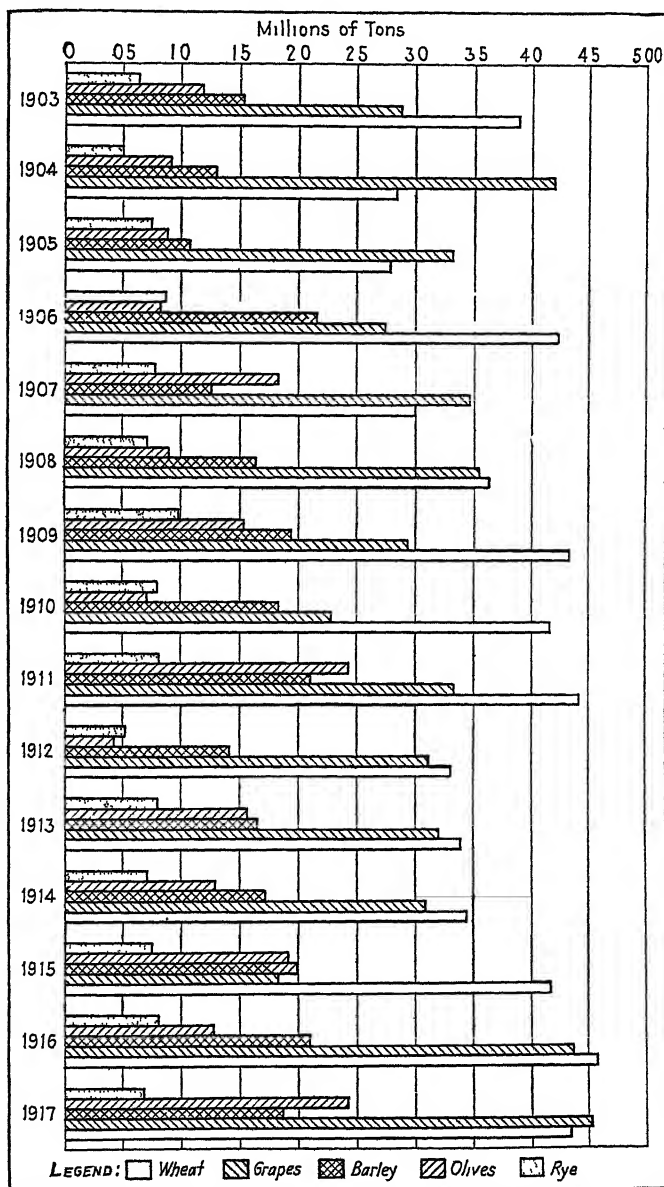


FIG. 33 — Illustrating the erratic yields of Spanish crops

called the “California” type. It is characterized by rainy winters and hot, dry summers which have little variety—sometimes clouds are almost

lacking for weeks. The summers are less hot, however, than the drought and clear skies might lead one to expect, as they are tempered somewhat by the Mediterranean Sea and by the fact that the latitude of most of this region is higher than that of New York or Chicago. But they are decidedly hot, considerably above the temperature best for mankind, throughout at least three months. The excessive dryness of the air and dustiness of the fields, roads, and air in late summer is another undesirable characteristic of this climate. A dust haze normally increases in density as the dry season lengthens, until, in the autumn just before the rains come, it is often quite thick.

In winter, in contrast, conditions are usually desirable in most parts of this region. The temperatures are mild, the air is moist, rainfall is plentiful, and changes of weather are fairly frequent, with much but not excessive amounts of sunshine. In winter the climate approaches that most favorable for man except during spells of cold wind from the north and in spring, especially, during the occasional hot sirocco winds from north Africa.

Relief plays a prominent role in this province as compared with the part it plays in either the marine or continental provinces. Here even more than there the windward slopes and areas of high altitude are relatively well watered, while the leeward sides and areas in the rain shadows of the highlands are parched. Variation from year to year in the strength of winds from various directions affects the rainfall conspicuously and leads to notable contrasts in the yields of crops (Fig. 33).

CLIMATE AND HEALTH

Contrasts in Health.—There is in Europe a decided contrast in death rates, the rates increasing in all directions from the southern borders of the North Sea. The Netherlands and Denmark have the lowest rates, while the nations which are most remote in any direction have the highest in that direction. This is true not only of the death rates as reported by the various governments (Fig. 34) but also of the adjusted rates, those which consider the relative ages of the population, reducing each population to the same standard. The map (Fig. 35) shows the distribution of adjusted death rates in Europe for a recent period and reveals striking contrasts.

Possible Causes of the Contrasts. *Enlightenment and Diet.*—The explanation of these contrasts is by no means obvious, and several sorts of conditions have been called upon to account for this conspicuous difference in healthfulness. One is the contrast in the enlightenment of the people. But why should this decrease steadily in all directions from the center which has lowest death rates? Another explanation offered is the differences in diet. The nations which have the lowest rates have important dairy industries, and it is conceivable that the abundance of

milk and butter leads to a lower death rate. If so, the rates ought to be lower in Ireland than in England and in Russia than in Poland, for Ireland and Russia carry on relatively more dairying than England and Poland but have higher death rates.

Industries.—Another explanation has been that the death rates vary with industries. This may help explain the higher rates in industrial Belgium than in Netherlands, in England than in Denmark, in Northern Ireland than in the Irish Free State, but it will not explain the contrasts among the numerous nations which are predominantly agricultural.

Climatic Influences.—As the similarity between the distribution of health (death rates), Fig. 35, and that of the suitability of climate for man is close, the hypothesis that health varies with the climate is a plausible one.

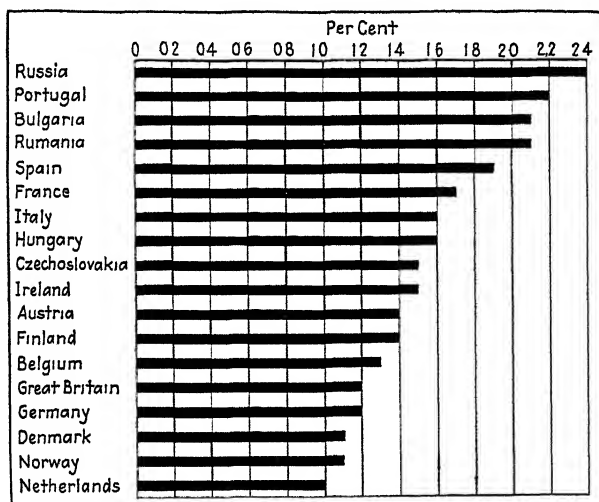


FIG. 34.—Deaths, percentage of total population dying per year, average 1923 to 1927. Since a rate of 1 per cent indicates an average age at death of 100 years, it is obvious that the death rates of the period 1923 to 1927 are lower than can be maintained

Temperature—The elements of the climate which most conspicuously affect health are temperature and the moisture content of the air. Prolonged and elaborate studies by Ellsworth Huntington and many others have disclosed much evidence that indicates that for man's physical health an average outdoor temperature of about 63° F. is best for most of the population, but that a considerably lower temperature is best for children and a somewhat higher one for old people. The Mediterranean climatic province has temperatures above the optimum for man during much of the year, and the subarctic has temperatures decidedly below the optimum practically all the year. The continental climate has similar low temperatures in winter. Hence none of these regions could be

expected to have very low death rates if the temperature is an important influence on health. The marine climate, however, has average temperatures close to the optimum, seldom more than a few degrees above it, and only in short spells in winter more than a few degrees below. Furthermore, within this province the portion bordering the southern part of the North Sea approaches the ideal temperature most closely, while in the more remote parts the departure is greatest.

Humidity.—Atmospheric humidity appears to be another important factor in health. For temperatures near the optimum, the evidence indicates that a relative humidity of about 80 per cent is best, and at

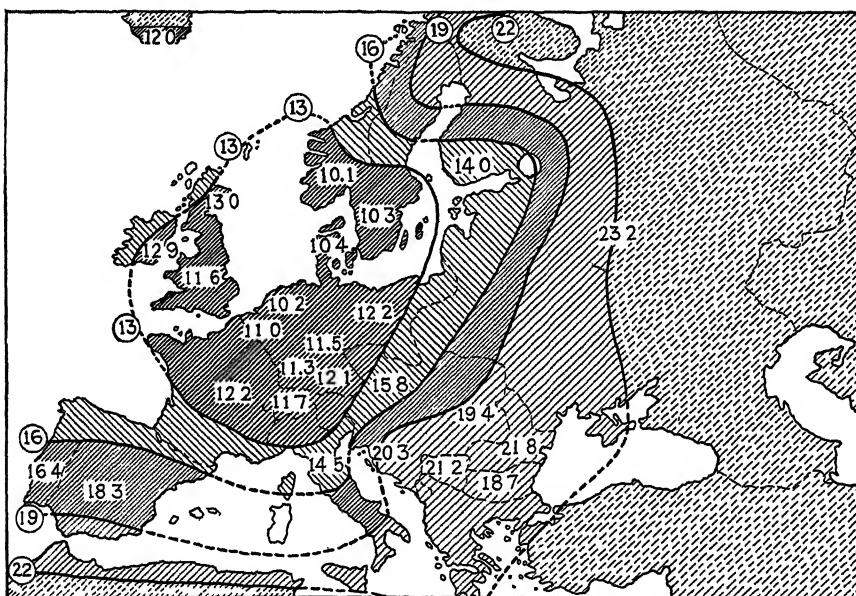


FIG 35 —Distribution of health, so far as it is shown by the adjusted, standardized death rates (From Huntington and Williams' *Business Geography*, John Wiley & Sons, Inc., by permission)

temperatures of 70° F., one of about 50 per cent. At temperatures below freezing the air cannot contain enough moisture so that the lungs are not put under exertion to add enough water to saturate it when it is exhaled at 98.6° F. When the temperatures are low, as in winter in the continental and subarctic, climatic provinces, the air contains less, often very much less, than 1 grain per cubic foot. In order to saturate such air at blood temperatures, which means that each cubic foot must contain 19 grains of water, the body must yield much moisture. The large amount required comes chiefly from the mucous membranes of the air passages with the result that they are dried out and often injured so that

germs find favorable conditions, thus leading to infections, including some colds and pneumonia.

In the Mediterranean province where the relative humidity is low during the warm dry summer days, the air nevertheless usually contains much more moisture than does the cold air of the continental province in winter. This is because its capacity for moisture is so great. Indeed the air near the Mediterranean Sea nearly always contains 4 or 5 grains of moisture per cubic foot. The general lack of rain in the summer arises from the fact that the air is seldom cooled sufficiently to be compelled to drop part of its moisture. As apparently the human body is prepared to add several grains of water per cubic foot to the air inhaled, the harmful effects of the low relative humidity of the dry summers of the Mediterranean region presumably are largely due to their dustiness. There is much evidence that when the air is filled with dust, as it often is in warm regions which are dry for long periods, human health is impaired, and death rates rise. For example, in India the coming of the summer monsoon rains results in a sharp fall in death rates, although the moist heat is often popularly thought to be much less desirable than the dry heat. It certainly feels hotter.

Since in Europe there is a decided decrease in atmospheric moisture southward in summer and eastward in winter, it is plausible, in the light of the foregoing, that humidity conditions help explain the increase in death rates in those directions.

Variability—A third climatic condition which has been found to have a distinct influence on health is variability of temperature from day to day. The evidence indicates that frequent changes of temperature of a few degrees are advantageous, but that sharp changes are harmful and monotony still more so. In Europe the climatic province having most frequent moderate changes of temperature is the marine. The continental climate has occasional extreme changes alternating with periods of monotony. During much of the summer the Mediterranean province has so few changes from day to day that temperature conditions are monotonous. Therefore in so far as the character of the variability is important in affecting health, its distribution in Europe helps explain the observed differences in death rates.

Sunshine.—Another climatic element having conspicuous influence on health is sunshine. The inadequacy of sunlight, especially of the ultra-violet rays, during the winter in northern Europe is proved by the prevalence of rickets there then. Rickets has increased greatly since window glass, which shuts out the ultra-violet rays, has been widely used, and with the great increase of the proportion of the population living in smoky cities. It therefore appears that European man was fairly well adjusted formerly, when he spent much more time outdoors, to the amount of sunlight in the North Sea region. If so, the excessive

amount of sunshine in the Mediterranean province is unneeded by people in normal health, and it may have a harmful influence on the nerves. This is suggested by the effort people take in very sunny regions to stay in the shade during the hours of greatest intensity of sunlight. The dark color of the skin characteristic of the people of very sunny regions is a protective response also, as a dark skin absorbs very much less of the ultra-violet rays than does a white skin.

In the less sunny parts of Europe the variation in sunshine may, however, help explain the variation in death rates; for example, part of the excess of Ireland and Scotland over England, and of North Ireland over the Irish Free State. This is because the amount and intensity of sunlight decreases in the British Isles northward and westward from southeastern England, the part bordering the southern North Sea. It clearly helps explain part of the excess of rickets and of deaths in the large smoky cities, such as London, over the death rates in sunnier places in the same general climate and country.

CHAPTER III

RELIEF AND SOME OF ITS EFFECTS

DIVISIONS OF EUROPE ON THE BASIS OF RELIEF

Europe consists chiefly of three major physiographic provinces which converge on the west and diverge eastward (Fig 36). The more northern province is the northwestern highland. Its main portion consists of the Scandinavian mountains; but it has a large number of outliers, for the northwestern portion of Europe has been submerged in relatively

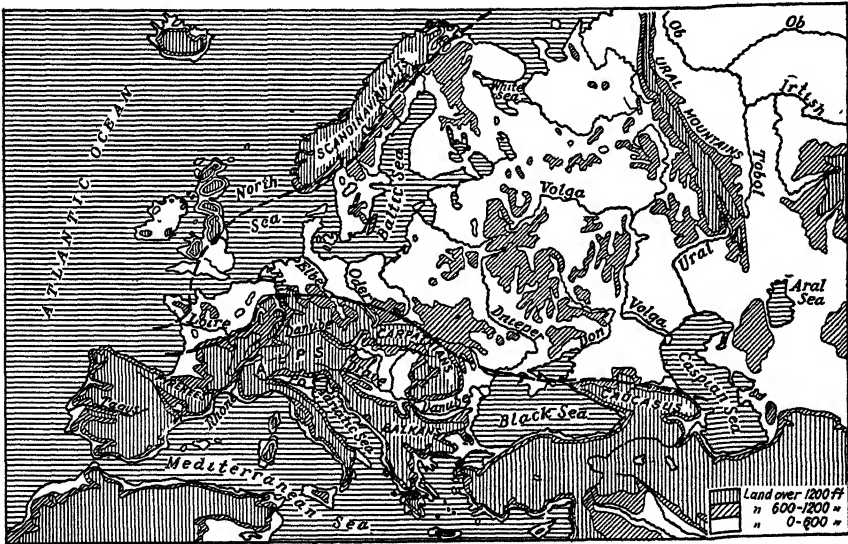


FIG 36 — Generalized relief map of Europe. The upper dashed line marks the south-eastern limit of the northwestern highland, and the lower dashed lines the northern limit of the southern complex. Between is the European Plain.

recent geologic times and parts of the highland have been drowned. In the north, Spitsbergen may be counted as a detached portion of the highland. Farther south not only the Faeroe and Shetland islands but Scotland, Ireland, northern England, Wales, Cornwall, and the hilly region of Brittany in western France all belong to this province.

The next province is the great central lowland or European Plain which extends from western France and southeastern England through Germany to Russia. There it expands so that it extends from the Arctic

Ocean on the north to the Black and Caspian seas on the south, a distance of 1,500 miles. The third province is the southern complex, an intricate mixture of mountains, plateaus, valleys, and plains. It begins in Iberia, extends through southern France and Germany to Czechoslovakia and Rumania (Romania) and includes all of Europe south of these countries. In its relief and drainage this province is so much more diverse than the others that it is desirable to subdivide it into four subprovinces: (a) the old central mountains and basins, (b) the young Alpine ranges, (c) the southeastern basins, and (d) the southern peninsulas. The accompanying small sketch map (Fig. 40) shows the approximate limits of these subregions. Along with numerous other significant physiographic features they are shown much more effectively in the large-scale physiographic diagram.

ADVANTAGES OF EUROPEAN RELIEF

Before considering the three great physiographic regions in detail, let us inquire whether their general arrangement and chief features are advantageous to Europe. In answering this question we shall have to take account of the effect of the relief on at least four conditions: (1) density of population, (2) communication, (3) relation of the people to the sea, and (4) climate. To make the matter concrete, we may ask. In what ways would a change in the relief of Europe be helpful to human progress, and in what respects does the relief of Europe put people there at an advantage or disadvantage compared with people in the other continents? Let us consider each of the main physiographic regions separately.

Handicap of the Northwestern Highland.—To begin with the northwestern highland. Mountains or highlands along the coast nearly always are a disadvantage. The exception is the trade wind belt which is dry except where mountains induce rainfall. As in all rugged regions the scarcity of level land and of deep soil greatly diminishes the number of people who can be supported locally. The mountains also render communication difficult not only because of the slopes which must be surmounted by roads and railroads, but because they decrease or prevent the navigability of the rivers. These effects pertain chiefly to the actual highlands. Likewise mountains along or near a coast tend to keep the inhabitants of the interior away from the ocean and thus to hinder commerce. The people who live immediately among the mountains may be driven to concentrate along the seacoast both because of the presence of relatively level land and because of the need of turning to the sea and its fish for a living, but those who live farther away are largely cut off from the advantages of the ocean. Still more important is the fact that the mountains interfere with or prevent the valuable climatic influence

of the ocean from penetrating far inland, while on the windward coast they often cause excessive rainfall and cloudiness.

The northwestern highland is no exception to the general rule in any of these respects. Throughout much of Scandinavia, Scotland, and wherever the highland is rugged, the mere roughness of the topography makes it almost impossible for a large population to support itself (Fig. 37). This is especially to be regretted, for throughout much of the highland the climate near sea level appears to foster health and make the people sturdy and adventuresome. Communication as well as agriculture is hampered. No railroad runs parallel with the western coast in Norway, Scotland, Ireland, or Wales, although the corresponding east

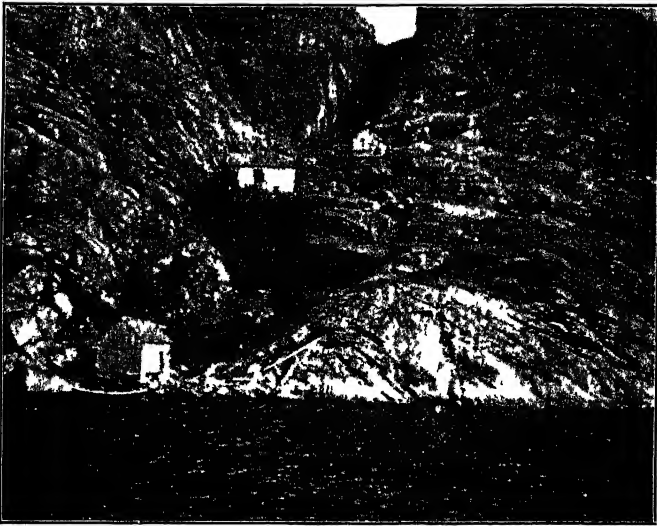


FIG. 37.—A view in the northwestern highland, a Norwegian farm. Rocky Norway has little soil (From Mark Jefferson, *Man in Europe*, Harcourt, Brace and Co, by permission.)

coast with its gentler topography and denser population is in each case closely paralleled by a railroad (Fig. 240).

Climatic Handicap.—So far as climate is concerned, the northwestern highland presents a threefold disadvantage; it prevents the ameliorating and invigorating effect of the sea from penetrating as far into Europe as would otherwise be the case; it hinders agriculture by lowering the temperature, for even at an altitude of one or two thousand feet the growth of crops is hampered in such high latitudes; and it also renders parts of the region unproductive because of too much cloudiness, fog, and rain. Thus from most points of view the northwestern highland appears to be a disadvantage to Europe. It presents, to be sure, certain minor advantages such as deep fjords for harbors, and beautiful scenery

for tourists. Yet on the whole Europe would be much better off if the western highland could be transferred bodily to the eastern part of the continent. There it would cut off Europe from the backward regions of Asia instead of from the Atlantic. There its ruggedness would decrease the habitability of regions which are climatically far less favorable than those where it now lies, and at the same time it would increase the rainfall and thus improve the climate of those same regions. There it would send out great rivers to traverse the continent and thus improve the access to the sea.

In spite of the fact that the northwestern highland is a hindrance to Europe, the hindrance is far less than that arising from similar mountains in other continents. In both North and South America every one of the disadvantages arising from the northwestern highland is produced in far greater measure by the Coast ranges, Cascades, Sierras, Rockies, and Andes. In Africa and Australia the windward coasts are bordered by obstructive highlands, while in Asia vast ranges cut off a large part of the interior. Thus, compared with the handicap imposed by mountains on the windward side of all the other continents, Europe is highly favored. The reason is that Europe's windward highland is no longer continuous. Many parts of it have been worn low and much is submerged, and, furthermore, it fortunately does not connect with the southern highland.

Advantages of the European Plain.—The great lowland of Europe may be dismissed more briefly. In every respect where the highland is a disadvantage, the lowland plain is an advantage. The plain with its deep soil can support vast numbers of people. It is open to the ocean all the way from southwestern France to the head of the Gulf of Finland. Thus its gentle relief combines with the proximity of the ocean to favor transportation. Furthermore its east-west extent, in the direction of much of the world's commerce, is highly favorable. Although the Scandinavian mountains shut off oceanic influences from the comparatively small region to their east to a harmful extent, the British part of the highland is too small and broken to prevent the ocean from having great value in improving the climate of the plain at least as far east as Poland.

Europe alone among the continents possesses a great plain which opens freely to the ocean on the windward side in temperate latitudes. In South America the great interior plain reaches the sea not only in low latitudes but also in the highly favorable latitudes from 30 to 50 degrees from the equator. Unfortunately, however, it reaches the leeward east coast and not the climatically far more desirable windward west coast. So too, the plains of North America and Asia reach the coast in the far north, but there it is too cold to make the contact of the plain and ocean valuable. In Australia, likewise, the plain reaches the ocean at the north and also at the south, but in neither case does this do

much good, for the winds do not blow so as to carry the oceanic influence inland to any appreciable extent. It is the openness of the European Plain to the prevailing west winds that counts. Thus in its central plain, as in its northwestern or windward highland, Europe is much more favored than any other continent.

The Significance of the Southern Complex.—Turning now to the southern complex of mountains and plains: The fact that the Mediterranean Sea penetrates more than two thousand miles into the interior is an enormous advantage, such as no other continent possesses. On the other hand, the fact that a large part of Europe in the favorable latitudes of 35 to 50 degrees is rugged is a decided handicap. The mountains not only reduce the opportunities for supporting a large population, but they separate north and south Europe to a degree that is harmful. They cause rainfall on their windward slopes, but make the lee sides dry and tend to keep out the cyclonic disturbances which bring rain and weather changes. They also divide the southern part of Europe into many small regions, which tend to remain culturally isolated because of their physical barriers. Thus the relief of southern Europe is rather disadvantageous. Yet the handicap is slight as compared with Asia. Where Europe has a series of ranges with gaps and even passes much below the level of perpetual snow, Asia has the enormously longer, wider, and loftier Himalayas and Tibet (Fig 205). Compared with either North or South America, however, Europe is in this regard at a disadvantage. Nevertheless the presence of the Mediterranean Sea adds so great an element of advantage that when relation to the sea as well as relief is considered, even Europe's southern portion is seen to be relatively favored.

THE NORTHWESTERN HIGHLAND

A Rugged Region.—Let us turn back to the three great physiographic divisions of Europe and learn something of their general appearance and other characteristics so far as these pertain to relief and drainage. The northwestern highland throughout almost its entire extent possesses four striking characteristics. First, the main outlines of the topography are those of old mountains of resistant rocks which have been worn down to moderate relief. Second, erosion by ancient glaciers has largely removed the soil from the uplands and has deepened some of the valleys and steepened their sides so that there is a marked contrast between the relatively gentle slopes of the uplands and the precipitous slopes bordering the deeper valleys. Third, there is superposed not only the peculiar carving and scraping of an ice sheet, but also many little irregularities due to the deposition of glacial materials here and there across the valleys, in the small plains, and even on the hilltops. The result is an extraordinarily varied topography, an abundance of lakes, and a great degree of irregularity in the courses of the rivers whereby waterfalls and rapids

have been created in great numbers. Many of the waterfalls in the more mountainous areas are of the hanging valley type (Figs. 41, 206). A fourth feature of the relief arises from a recent submergence of the coasts, by which most of the level land which usually borders the seashore has been submerged. Thousands of valleys have been converted into fiords or firths, partly by submergence and partly by glacial erosion below sea level (Fig. 224). Many of them extend miles between the mountains and are bordered by precipitous slopes of surpassing beauty and grandeur (Fig. 226); in the same way many hills and mountain ridges have been surrounded by water and now form countless islands. Nearly all of these special features are strikingly shown in the physiographic diagram.

Little Arable Land.—The net result of these several conditions of relief is that the arable land is reduced to small patches, conspicuous among which are deltas at the heads of the steep-sided valleys or on small natural terraces, and often separated from one another by slopes so

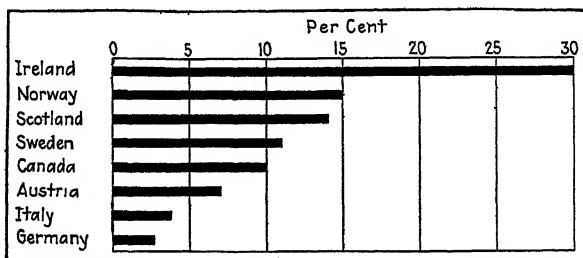


FIG. 38—Emigration, approximate percentage of living persons born in these lands residing in the United States in 1920

precipitous that roads to connect them can scarcely be constructed (Fig. 241). Everywhere in fact there is great difficulty in transportation unless the ocean is utilized, for the steepness of the sides of the glaciated valleys makes it hard to cross them, while the numerous lakes and irregular glacial deposits elsewhere interpose other difficulties. These conditions of relief naturally lead to a concentration of the people along the seacoast, and to emigration (Fig. 38). They also foster the development of a few well-defined industries. Chief among these industries is fishing (Figs. 242, 316), which in turn leads to seamanship and hence to commerce. Next comes forestry and its attendant occupations such as wood-working and furniture making, for the land if not too rugged is in many places adapted to forests (Fig. 229, 230). In recent years two other occupations depending in part upon the relief have risen into prominence. One is manufacturing by means of hydroelectric power from the many waterfalls and rapids (Figs. 73, 176) and the other is the care of summer tourists. The relief and the inland waters of Norway and Scotland,

combined with the cool invigorating summers, are in fact making those countries great playgrounds for people from farther south.

THE EUROPEAN PLAIN OR CENTRAL LOWLAND

The Flatness of Much of the Region.—The great central division of Europe is often called a plain but is better described as a lowland, for although it is a plain in its broad outlines it shows considerable variety of relief on a small scale. Some parts, such as the coasts of western France and Netherlands, the central part of Germany in the latitude of Berlin, and large areas in Poland and Russia, are almost flat. The rivers flow close to the surface and wander here and there. Their banks are often ill defined unless man has dyked them, and in times of flood the waters frequently spread widely. Such conditions are highly favorable to the use of inland waters for transportation. The streams are slow, the supply of water varies relatively little, and canals can easily be dug in the deep soil of the level stretches between the rivers. This is one reason why, aside from the Great Lakes and possibly part of China, the world's greatest system of inland waterways, including canals as well as rivers, has been developed in the flat part of the European Plain (Fig 203).

The Shallow Basins toward the West.—Other parts of the European Plain show more variety in their relief. For example, both London and Paris lie in basins, around which hills rise a few hundred feet. Many of these hills are formed by alternately resistant and weak strata which slope from every side toward the center, Paris or London. These are well shown on the cross section of the physiographic diagram in the pocket. Because of the dip of the rocks, the slope of the hills is gentle toward the center of the basin but abrupt on the outer side. This fact, joined with the relative narrowness of the valleys where the streams break through the ridges, did much to help the French hold off the Germans from Paris during the World War. Elsewhere, for instance, in western France away from the seacoast and in southern Germany, much of the country is gently rolling. Much of Russia has this gently rolling character, also, and in many areas the rivers are intrenched in distinct though shallow valleys.

Influence of Ancient Glaciation.—The northern part of the great central lowland is diversified by glacial deposits north of a line extending from extreme northwestern France almost due east nearly to the lower great bend of the Volga. These deposits are most pronounced in southern Sweden and northern Germany, which were covered by the last, fourth, great advance of the ice as well as by the earlier ones. There many moraines occur. Locally the topography is rough, although rarely do the hills rise more than a few score feet. Innumerable hollows and hills, with almost uncounted lakes and swamps, make the country

locally difficult to traverse. However, especially in Germany, there are some east-west depressions, which have greatly facilitated canal construction and also railroad building. These were formed partly by the temporary streams when the ice front stood across the area. Several are conspicuously shown on the physiographic diagram. Here and there in connection with a variety of glacial deposits are extensive plains of sand where this material was spread abroad by glaciers and the streams that flowed from the melting ice sheets. Denmark and northern Germany contain thousands of square miles of this type (Fig. 39).

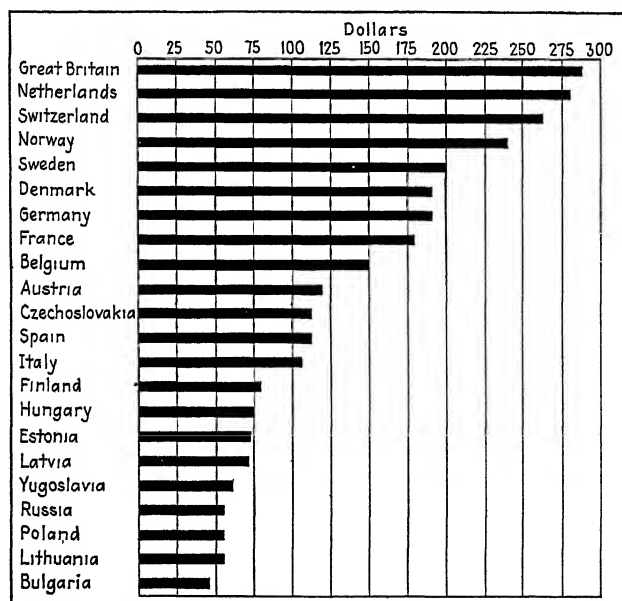


FIG. 39.—Contrasts in the per capita income, 1928.

Summary.—Thus, to summarize, the central plain is smoothest along a strip extending from the upper Dnepr (Dnieper) River through Berlin to the mouth of the Rhine and across the North Sea to the plain of Norfolk in England. To the south of this narrow strip the plain is gently rolling toward the east, but toward the west in northern France and southern England it is hilly, although the hills are never high. To the north it is also hilly, but there the hills are largely glacial in origin and are decidedly irregular in contrast to the regular hills of France and southern England. Everywhere the soil is relatively deep, although it varies much in quality, and rests on young and comparatively weak rocks or on unconsolidated deposits. Under these lie older rocks, but they are usually so deeply buried that they play little part in the life of the people, except where they contain coal.

THE SOUTHERN COMPLEX

The southern complex of Europe differs from the northwestern highland almost as much as from the central lowland. Its first subprovince is the old central mountains forming an arc from southern France to western Czechoslovakia (Fig 40). The second is a series of great disconnected young mountain ranges running sinuously eastward from western Iberia to the Caspian, and including the Pyrenees, the Alps, Carpathians, Balkans and Caucasus. Third come the basins of Hungary, Rumania (Romania), and the Po. The last subprovince is the three great peninsulas of Spain, Italy, and the Balkans. These four subprovinces include so great a variety of geological structure and scenery that even though we confine ourselves to their main characteristics it necessitates a good many details and the use of unfamiliar names. The physiographic diagram, in the pocket, is especially helpful in studying this complicated region

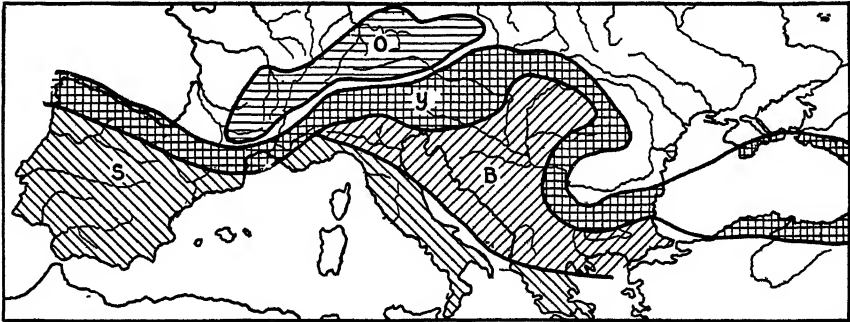


FIG 40—Physiographic subregions of southern Europe

The Old Central Mountains and Their Basins.—From the plateau of Cevennes and Auvergne in southern France, as far as Bohemia, a series of low mountains forms an arc parallel with the Alps. The so-called "plateau of central France," which really lies largely in southern France, forms the portion of this province west of the Rhone Valley. The Jura Mountains and the plateaus of Vosges and Ardennes lie just west of the Rhine. To the east, all of southern Germany from the Schwarzwald (Black Forest) and the Swabian Jura in the south to the Harz Mountains on the north possesses a mountainous character. One of the chief characteristics of all these mountains and plateaus is that they are composed of relatively old rocks and have been worn down to a state of mature relief. Hence the valleys are usually broad with gently sloping sides, gorges are rare, and most of the slopes are well covered with soil. In the south, to be sure, the plateau of central France contains an area covered with recent lavas where the peaks of volcanoes

that broke through old crystalline rocks are still so fresh that the craters in their tops are almost perfect

Low Timbered Mountains.—Characteristic of this region are the low timbered mountains, the so-called "forests" of eastern France and western Germany. The best known are perhaps the Vosges and Ardennes in France, the Schwarzwald in Germany, and the Bohmerwald (Bohemian Forest) in Czechoslovakia. They are merely relatively flat-topped masses of mountain or plateau broken by broad but rather imposing valleys, and partly covered with forests where they are too rugged and cool to warrant cultivation. The Swiss Jura is of another type geologically, for there sedimentary rocks have been thrown into folds and erosion has removed the weaker rocks, leaving a series of closely parallel ridges. The Swabian Jura, a little farther east, consists of sedimentary rocks with a general slope to the south, so that erosion has produced ridges of the *cuesta* type, with gentle slopes toward the south and steep slopes at the north, where the resistant layers end. Still another prominent feature of the old central mountains is the number of fault blocks. The plain of the upper Rhine, the so-called Rhine "graben," is bordered by faults, as is the basin of Bohemia locally on the north, in the Erzgebirge and the Riesengebirge. The Rhine graben is clearly shown in the cross section at the bottom of the physiographic diagram.

Bordering the various mountain masses of the complex central European area, and scattered here and there among them, lie a series of rich valleys. Those of the Rhone, the Meuse, the Moselle and the Rhine are famous. Those of the Meuse and Moselle have been cut into the plateaus by the rivers themselves, and hence are relatively narrow. The upper Rhine and Rhone were formerly occupied by glaciers that descended from the Alps. They have wider bottoms, and contain lakes and waterfalls. Farther east and south other valleys of central Europe shelter some of the most prosperous and progressive people in the world. Such are the rich lowland of Switzerland, the valley of the upper Danube in Bavaria, the valley of the Main in Germany, that of the Elbe and its tributary, the Moldau, in Bohemia, and of the middle Danube in Austria.

The Young Alpine Mountains.—South of the old and maturely dissected mountains of central Europe, three great mountain chains have been heaved up in relatively recent geologic times: the Pyrenees, the Alps, and the Carpathians. Farther east the same general line of uplift is continued in the Balkan Range, the mountains of Krim (Crimea), and the mighty Caucasus. The massiveness of most of these chains is in marked contrast with the diffuseness, so to speak, of their old neighbors to the north. From end to end the Pyrenees are a lofty range with no low passes. They form the most decisive kind of boundary between France and Spain and thereby contrast most markedly with the indecisive boundaries formed by the old mountains. In the Alps, open

valleys penetrate far more deeply, largely because the Alps were extensively glaciated. While the passes are generally at an altitude of 4,000 to 7,000 feet, they are relatively lower than those of the Pyrenees which were less extensively glaciated. Nevertheless, until modern roads and railroads were built it was not easy to cross the Alps or to go around them at the western end where they turn south and reach the sea in the Riviera. The Carpathians, although they were only locally glaciated, are enough lower so that they are not so difficult to cross as the other chains, but they form a very decided barrier, and the same conditions obtain to a lesser degree in the northern Balkans (Fig 311). Still farther east the Caucasus Mountains form an even more distinct and insuperable barrier than the Pyrenees. Nowhere, except at the very ends—700 miles apart—are they crossed by a railroad, and only in the middle at the Darel Pass is there a wagon road.

How the various ranges compare in effectiveness as barriers may be judged from the fact that the Pyrenees have been an international boundary throughout practically the whole of modern history and have never been crossed by a great army, although armies have gone around the ends. The Alps have usually formed an international boundary and have for long periods sheltered an independent country within their protected valleys, but they have been twice crossed by great armies, once under Hannibal and once under Napoleon. The Carpathians have less often formed the boundary between countries and have been crossed by armies many times. The Balkan Range, too, has been crossed by armies, for instance, by Alexander the Great, by the Russians in 1876, and it has rarely formed a political boundary. The Caucasus with their numerous snow-capped peaks present a curious anomaly. Though the greatest and most impassable of the mountains of Europe, and the natural frontier of the continent, they have been crossed frequently by small Russian armies at the Darel Pass, and, presumably because of this great pass, they have been for long periods disregarded by the Russians as a political boundary. Indeed the Russians extend Russia in Europe beyond this range, putting it all in Europe, politically.

The Loftier Western Ranges.—Omitting from further consideration the Balkan Range and the lofty Caucasus, let us examine the appearance of the other three chains which form the young Alpine system. The Pyrenees are composed largely of limestones and other sedimentary rocks, and the ascent on either side is relatively sharp and short through steep-sided narrow valleys, which are often highly picturesque. For a considerable distance the peaks rise to about the same height, roughly ten thousand feet, but glaciers are now restricted to small patches, and even the area above forest level is small. The Alps, on the other hand, consist of a number of parallel ranges—the limestone Alps in front on the north, then the main granitic range, and again a limestone

range extending along the eastern part of the southern front. Although a general view of the Alps displays a fairly even crest line, individual peaks stand out much more than in the Pyrenees, as is clearly shown in the physiographic diagram in the pocket. Moreover, considerable areas lie at altitudes above the tree line, so that there are broad tracts of upland pasture, the grassy "alps," above which bare rock, snow, and ice prevail extensively. The most characteristic of all the features of the Alps is due to their extensive glaciation. During the glacial period ice not only filled the upper valleys, as it does today, but extended down to the lowlands. The resultant scenery is marked by flat-floored valleys with steep and often precipitous sides. Above the precipices another and gentler topography often contrasts with that which was formed by the great valley glaciers; and many tributary valleys are perched far above the main valleys into which they flow. The streams of such "hanging valleys" often cascade into the main valleys (Fig 206). Thus Switzerland owes much of her fine scenery and water power to the fact that the minor valleys contained smaller glaciers and were not eroded so deeply as were the main ones with their great glaciers.

High among the mountains at the heads of the valleys the ice has, as it were, bitten deeply into the main mass of the mountains, cutting numerous rounded depressions (cirques) some of which contain small lakes. This gives to many of the peaks a triangular shape like that which has become famous in the Matterhorn. At lower levels glacial erosion and the morainal dams formed at the ends of the ancient glaciers have given rise to a series of famous lakes, among which the Bodensee (Constance), Luzern, Geneva, and the Italian lakes are especially popular with tourists (Fig. 294). In few parts of the world do the combined features of relief and drainage present so beautiful a picture, and in very few indeed are so many fine bits of scenery easily accessible. This accessibility is partly due to relatively gentle slopes of the larger glaciated valleys which facilitate travel far toward the heads of the valleys (Fig 214)

Turning to the Carpathians, we find that in their western portion the High Tatry (Tatra) presents many "alpine" features, characteristics of high mountains that have been glaciated. Farther east the Carpathians are relatively low and unimpressive, except that in the extreme eastern portion in Rumania, where they bend to the southwest, they are rather lofty and picturesque.

The Southeastern Plains.—Within the arc of the Carpathians lies the plain of Hungary, while another, that of Rumania, lies between the Carpathians, the Balkans, and the Black Sea. The third plain, that of the Po, belongs in one sense to the Italian Peninsula, but is considered here because of its physiographic character. The three plains are alike in several important respects. Each is largely encircled

by mountains; each is traversed by a river and is largely the product of river deposition; each is flat, deep soiled, and fertile; and each has considerable swampy areas along the rivers. Between the Hungarian and Rumanian plains the Danube has cut a gorge, the Iron Gate, through the spur of mountains that connects the Carpathians and the Balkans. A notable feature of the Rumanian Plain is the swamps at its eastern end where the Danube, after being turned north around the low plateau

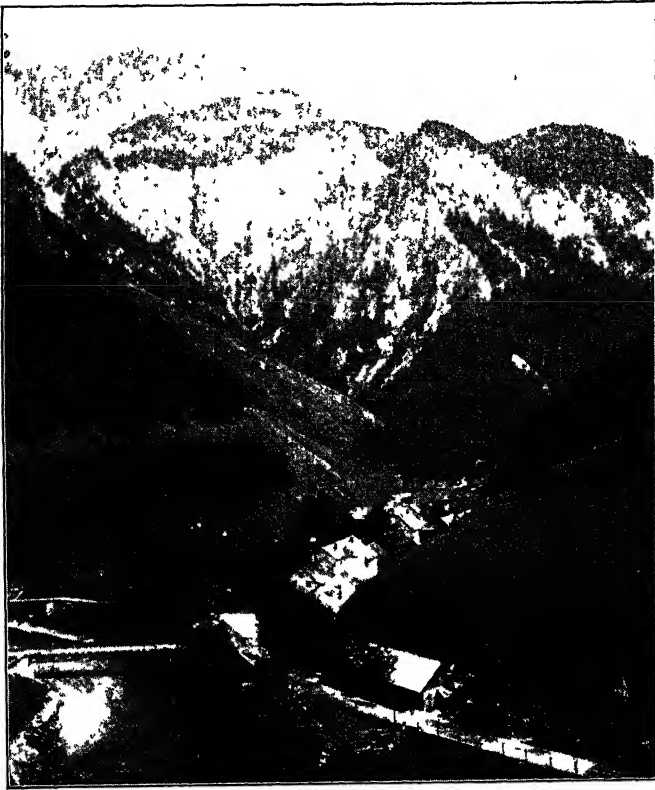


FIG. 41.—Kaiserbrunn in the Austrian Alps (*Courtesy of the Austrian Legation, Washington, D. C.*)

of the Dobruja, approaches the Black Sea. The swamps at the mouth of the Po are as pronounced as those at the mouth of the Danube. The Po has extended the land at its mouth 13 miles since the days of Caesar, when Adria was a seaport.

The Southern Peninsulas.—The relief of the southern peninsulas is as complicated as that of the old central mountains, and the scale of the mountains is larger. The mountains are generally composed of limestone or other sedimentaries with only a small percentage of igneous

rocks, and the slopes are for the most part steeper and more difficult to scale than those of the old central mountains. The mountains are usually rocky in their lower portions, partly because of being given over so largely to the pasturage of sheep and goats, but still more because of the dry climate (Fig 51) Higher up, where the rainfall is greater and evaporation less because of the lower temperature, forests of live oak, chestnut, laurel, and similar trees may be found, and at higher levels, pines. The lowlands may be plateau-like, as in Spain (Fig. 42), or valley-like.

The Balkan Peninsula.—In the Balkans and Greece there is a maze of mountains, plateaus, and tiny plains, as the physiographic diagram discloses Except possibly for Bulgaria, no amount of skill in boundary

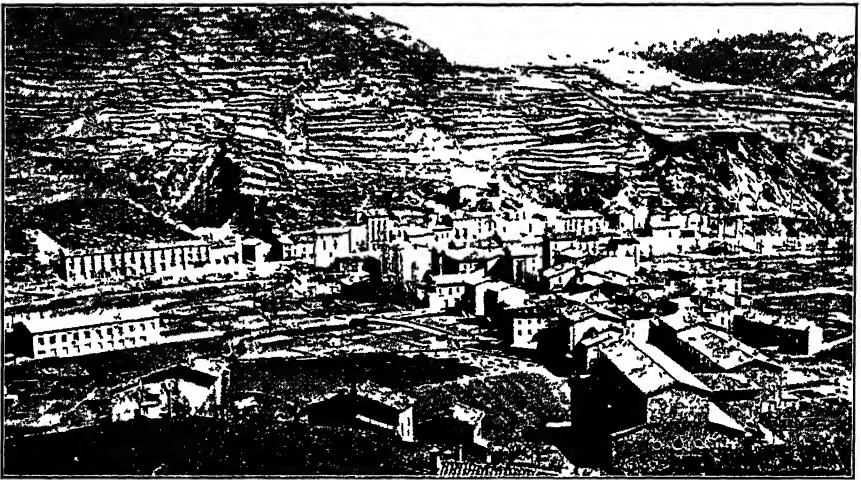


FIG 42—Terraced slopes above Campdevanol, Spain The large buildings in the town are apartment residences, not factories Terracing is common in the Mediterranean countries

making can divide it into large sections that are naturally bound together. Almost every history of Greece emphasizes this heterogeneity, this division into a great number of small units with conflicting interests. The physiographic diversity of the country and its division into many little natural units is often said to have promoted the growth of democracy in the sense of popular government. If this were the case, we ought to find a democratic form of government in the rest of the Balkans and in other rugged lands, but often instead of democracy there is tyranny. The development of self-government in Greece was apparently due to something in Greek character. What the topography actually did was to promote the formation of many little states, just as happened among the old mountains of central Europe. It may almost be regarded as a geographic axiom that the size and stability of countries depend largely

on their topography. At one extreme lies Russia, the hugest of countries in the hugest of plains, which still hangs together in spite of the shock of revolution. At the other extreme lie the Balkan countries always pulling apart because of their own internal rivalries. A goodly share, although by no means all, of the faults and miseries of the Balkan states must be laid on the topography, which makes communication difficult and thus promotes ignorance and provincialism.

THE BARRIER AND THE OPENINGS BETWEEN NORTHERN AND SOUTHERN EUROPE

The southern highland of Europe forms a pronounced line of demarcation between a large northern and a small but historically important southern section of Europe. Beginning at the Bay of Biscay the line of demarcation follows the Pyrenees, the Alps, the Dinaric Alps, and the Balkan and Rhodope mountains to the Black Sea near Istanbul (Constantinople). In four places the continuity of the mountain chains is broken. First and most important, east of the Pyrenees along the shore of the Golfe du Lion, a broad and inviting gap 160 miles wide gives easy access from the Mediterranean Sea to the central plain either westward via Toulouse and the Garonne River, or northward via the Rhone, the Saône, and the Marne. Second, just east of the head of the Adriatic Sea the broad and lofty chain of the Alps with its high parallel ridges gives place to a single and much less lofty narrow ridge across which railroads have been built with comparative ease along an extraordinarily picturesque route. The third break in the mountains is much less marked than the others. It lies across the Balkan Peninsula by way of the valleys of the Morava and Vardar rivers between Beograd (Belgrade), and Thessalonike (Salonika). In its center there is a pass which is somewhat difficult, but compared with the routes across the mountains either on the east or the west for several score miles, this route is comparatively easy (Fig. 312). The fourth great break in the mountain barrier which separates both Europe and Asia into a northern and a southern section is the waterway of the Bosphorus and Dardanelles. Here, as at the Golfe du Lion, the great central plain is brought into close touch with the Mediterranean. Such a narrow opening cannot fail to be a great strategic position. Among all the world's chief cities no other exercises such complete control over the crossing of great land routes and great water routes as does Istanbul. Suez, Gibraltar, and Panama hold similar positions, but none of them controls a comparable land traffic. Moreover, they are far more handicapped by climatic conditions than is Istanbul.

Importance of the Barrier.—The significance of the mountain barrier of central Europe and of the openings through it is simple in principle but complex in application. In general, the barrier has tended to keep

the dark, slight, Mediterranean race in southern Europe, while the fair, tall Nordics and the broad-headed, gray-eyed Alpine people have been kept largely to the north of the mountains. More specifically, the Pyrenees are one of the chief reasons why Spain has preserved its individuality so persistently throughout history. Almost never has there been any serious question as to her northern boundary, and only in rare instances have armies crossed her borders. In the Napoleonic wars she was drawn into the maelstrom much less than any other great country of the mainland of Europe; while in the World War she was not drawn in at all. Yet the Pyrenean barrier has been a hindrance by keeping out trade and northern culture.

The Alps have had a similar effect. Many armies have gone around their eastern end from Austria and contended on the plain of the Po,



FIG. 43.—Gibraltar.

but it required the genius of Hannibal and Napoleon to take an army across them in the face of an enemy. Italy and Germany are only 45 miles apart in one place, while for 200 miles the distance between them is less than 70 miles. Yet because that 70 miles consists of the high Alps, Italy has had far less to do with Germany than with either France or Austria.

Significance of the Gaps.—Let us turn now to the openings between the mountain chains so clearly evident on the physiographic diagram. The streams of migration that have entered northern Europe have moved in general toward the west. Always, however, there has been a strong tendency to swing southward toward the rich countries which border the Mediterranean. Greece was invaded through the easterly gap by way of Thrace. Later, when Italy was in her prime, other barbarians—Scyths, Goths, Vandals, Huns—came across the plains of Russia and skirted the mountains of central Europe. Part of these invaders sifted down into

Greece from the northeast Those who came to Rome almost never entered from the west or from the north across the Alps, but instead came from the northeast up the valleys of the Sava and Drava and hence through the Adriatic opening

Northward Movements.—Thus far we have spoken of movements southward through the four openings, but there have also been northward movements of equal significance. The southward movements have been largely those of people, the northward movements have been those of culture and language To begin in the east, although some Slavs have penetrated Greece, the Greeks themselves have again and again spread their culture around the shores of the Black Sea, *z e*, the Greek Catholic Church and some phases of Greek architecture have prevailed in modern Russia Passing by the historically less important Balkan corridor, we come to the Adriatic opening, through which avenue Rome spread her power to the eastern plains south of the Carpathian and Transylvanian mountains. The Latin language and something of the Latin culture went with the Roman armies, and Rumania (officially Romania) is today the Slavic country that bears the name of Rome and looks to the Latin countries for its model in all things.

The northward flow of civilization through the opening at the Golfe du Lion was far more important than through any of the other openings That way went Julius Caesar for the conquest of Gaul, and after him the hosts who Latinized France. Today it is hard to say which is more important in France, the dark Mediterranean peoples and Latin culture, the rugged Alpine people of the Auvergne Plateau, or the fair Teutonic complexion and nordic spirit of northern France. It has often been thought that to this full mingling of the great races of Europe France owes her versatility, her happy combination of a sturdy independence with a lightness of touch and a love of art that makes her the leader in many things.

The northern sweep of culture through southern France did more than this, however, for it gave the Roman church supremacy over all western Europe for a while It likewise spread Roman law through most of western Europe and laid the foundations of the Holy Roman Empire, an ideal which helped to guide Europe's political development for more than a thousand years Even beyond the English Channel the effect of the open road up the Rhone is still strongly felt, for through it early England received much of value.

CHAPTER IV

CONTRASTS IN SOIL, VEGETATION, AND AGRICULTURE

The soils and native vegetation have received incidental mention in the chapters on climate and relief, but they can advantageously receive a somewhat fuller discussion in connection with a survey of the agriculture

CAUSES OF DIFFERENCES IN SOILS

As the character of the soil depends primarily upon climate, slope, and the nature of the parent rock, and as there are, as we have seen, considerable differences in these in Europe, numerous varieties of soil are present. The special characteristics of the soil are also strongly affected by the vegetation. The vegetation is in turn largely determined by climate, slope, drainage, and soil; so it will be best to consider the soil first.

Climate and Soil.—In regions which have a large number of permanent streams, because rainfall is in excess of the evaporation during much of the year, the escaping water carries off to the sea a large amount of mineral matter dissolved from the soil. Hence such regions normally have rather infertile soils.

Rich Soils of the Drier Regions.—In regions with very little rainfall, on the other hand, much of the soluble mineral matter remains in the soil. Indeed, whenever evaporation is in excess of run-off, the soluble minerals accumulate in the soil, with the result that the drier regions normally have a soil rich in the mineral plant foods. In many dry areas, wherever considerable underground water ascends and evaporates, the accumulation of soluble mineral matter is commonly excessive. This is true also in level areas that are flooded by the run-off caused by the occasional downpours, alkali tracts or salt flats are the result.

A large area near the Caspian Sea, considerable areas in southern Spain and Portugal, and smaller tracts elsewhere in southern Europe are damaged by an excess of soluble minerals in the soils of their flatter portions, because the evaporation in those areas notably exceeds the local rainfall. Despite the inflow from the longest river in Europe, the Caspian Sea is drying away so that the surface is now some 86 feet below the level of the ocean, and a considerable area in that region is below sea level (See the physiographic diagram). In the entire Mediterranean region evaporation exceeds rainfall, as is proved by the fact that a large volume of water is constantly entering the Mediterranean Sea from the Atlantic.

Therefore, on the average the level soils of the Mediterranean region are fairly rich in mineral matter unless depleted by agriculture. On the hillsides, however, run-off exceeds evaporation, and hence there the soils are leached unless they are carried away before this occurs. As there is a large amount of run-off in this region following the often torrential rains, there is considerable erosion on the steeper slopes, which therefore often have only a thin soil that has been exposed so recently to the action of the air and rain that it is not leached.

Poorer Soils of the Wetter Regions—According to the general rule that rainy cool regions tend to have relatively infertile soils, much of north-western Europe ought to have poor soils and does, except where the parent material is especially rich in mineral plant foods. Fortunately, however, a large share of northern Europe was recently glaciated and the fine materials made by the ice as it ground up the rocks normally still contain sufficient soluble mineral matter to produce fairly fertile soils. Where the glaciers ground up sandstone or other rocks composed largely of quartz, however, the glacial deposits are often excessively sandy and infertile so that the soils developed on them require extensive fertilization in order to yield bountiful crops. The remarkable potash deposits of Stassfurt, Germany, and the smaller deposits in Alsace have been used to especial advantage on soils of this sort. Northwestern Europe has also imported vast quantities of nitrate from Chile, and now is obtaining even greater amounts by chemically fixing the nitrogen of the air. The other critical mineral plant food, phosphate, is also imported in large quantities. Formerly much came in the form of guano chiefly from desert islands of the Pacific, but now it comes mainly in the form of phosphate rock from north Africa and Florida. Recently also much phosphate fertilizer has been made in Europe as a by-product of the smelting of phosphorus-bearing iron ores, the so-called "Thomas slag flour."

In addition to areas covered with glacial deposits which still contain much soluble plant food, northwestern Europe has some areas of relatively productive soil developed on impure limestones, as well as many small areas of fertile alluvial soils along the flood-plains or former flood plains of rivers or on their deltas.

Soils in Eastern Europe—In much of eastern Europe, in the continental climatic province, there is relatively little run-off. The discharge of the Volga, which with its tributaries drains a large share of eastern Europe, is often very small indeed, and averages less than a fourth of the discharge of the Rhine, whose basin is small in comparison. According to the rule, therefore, the soils of eastern Europe ought on the average to be rich, and they are. Furthermore the northern half has been recently glaciated and is covered, except in much of Finland and northern Russia, with a deep layer of glacial drift which contains large amounts of soluble mineral matter. Southward beyond the area of the drift left by the later

advances of the glacier is a wide zone of an exceptional character, the black earths.

The Black Earth Belt—The famous black earth soils of southern Russia are considered by experts to be among the best in the world. They were formed in a grass-covered plain, beyond the margin of the glacier at its last great advance. They consist of materials carried thence by streams and especially by the wind. The wind-blown glacial clays and fine sand lodged in the growing grass and accumulated to great depths. The abundant roots of the grass have added large quantities of humus, which gives the soil its black color. Forest soils, in contrast, normally are light colored and are rather poor in humus, as are also the soils of the drier regions wherever there is not an abundant growth of grass. In the Mediterranean region, therefore, and also in northwestern Europe light-colored soils predominate. In both regions, however, the alluvial soils are dark, and in northwestern Europe the soils are black in the many areas that were formerly marshy or which have long been used for meadows, even though they were originally forested. The latter have been decidedly improved in quality. But the opposite result has occurred in much of southern Europe where long cultivation of hillsides has resulted in a serious soil removal by erosion. Indeed innumerable small tracts which had fertile soil during the time of ancient Greece and Rome are no longer suited for tillage.

VEGETATION REGIONS

Europe has ten major vegetation regions, each with different agricultural conditions. Mention should also be made of a number of additional types of agriculture developed under special conditions within one or another of the major types of vegetation.

These major types are the tundra, the moors, the northern coniferous forest, the mixed forest, the deciduous forest, the prairies of tall grasses, the steppe of short or bunch grasses, the Mediterranean hard-leaved dry forest, the zone of coniferous forest on the mountains, and the Alpine meadows

The distribution of these ten types of vegetation depends upon climate, relief, and soil; and hence the major areas of the occurrence of most of them have already been mentioned in connection with climatic types and relief features. The distribution of the larger areas of the chief types is shown in a generalized way in Fig. 44.

The Tundra.—This type prevails in the subarctic climatic province discussed in Chap. II but is also represented on some high mountains. Furthermore, the heaths or moors have many plants which are found in the tundra also, such as the cranberries, dwarf blueberries, dwarfed willow, birch, sphagnum mosses, certain sedges and grasses, and a variety of herbaceous flowers. The tundra's most useful plants are the grasses and

the lichen known as "reindeer moss." The tundra and the moors resemble one another in vegetation because in both the plants suffer from the cold and the excessive acid water in the soil. Although in winter the tundra is much colder than the moors of Ireland and northern Germany, for example, the tundra plants are there largely protected by snow and are less commonly winterkilled by the biting winds than are those of the moors in regions where the snow is less regular and persistent. The

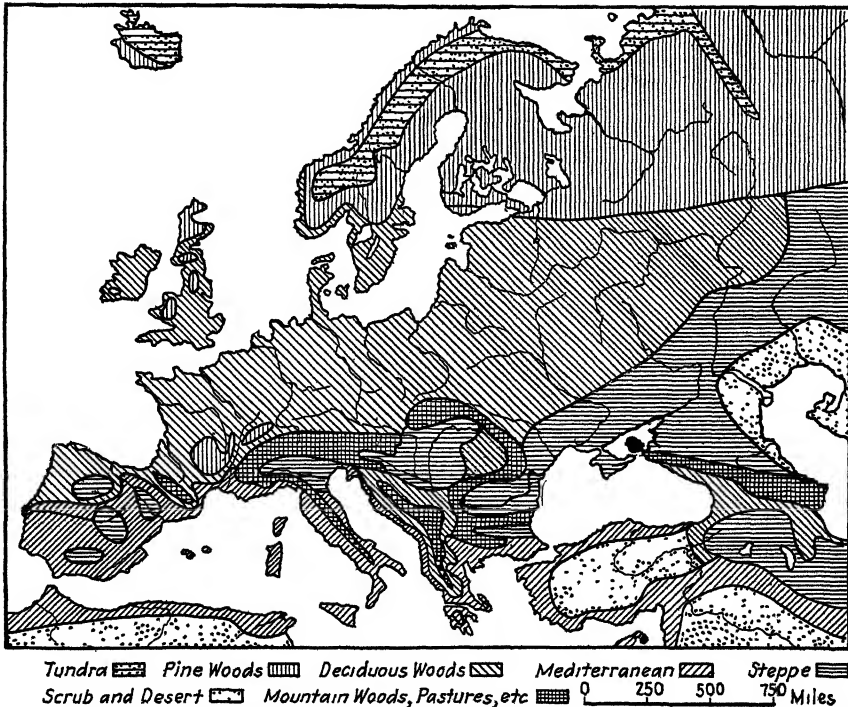


FIG 44—Vegetation regions, generalized. (After MacMunn and Coster, Oxford University Press.)

tundra is too cold, at night at least, for crops, and the only type of agricultural activity is the grazing of reindeer. The moors and heaths are likewise not tilled and are largely unoccupied despite their frequent proximity to dense populations. They are put to some use, however, as poor pasture lands for cattle and sheep, and are also the home of protected game animals such as the stag and the grouse.

The northern coniferous forest occupies the northern part of the continental climatic province and extends into the marine climate on the elevations. It is characterized by fir, spruce, larch, and pine of numerous varieties (Fig 229). It also contains the small deciduous alder, willow, birch, and aspen, especially along streams. Between the trees, wherever

they are not too dense, there are numerous shrubs, herbs, and grasses. The grasses are not abundant enough, however, except in clearings, to make this zone important for grazing. Here and there in the northern coniferous forest, especially in its warmer southern half, there are clearings partly devoted to turnips, potatoes, oats, flax, and hay for cows kept for their milk. Lumbering is extensively carried on in this province, especially in Sweden and Finland (Figs. 246, 248).

The mixed forest is transitional between the northern coniferous and the deciduous and is widely represented in the marine climatic province, especially in sandy, rocky, or somewhat poorly drained soils. Its main development, however, is to the eastward, where it occupies a wide zone across central Russia. Extensive clearing has been made in this forest;

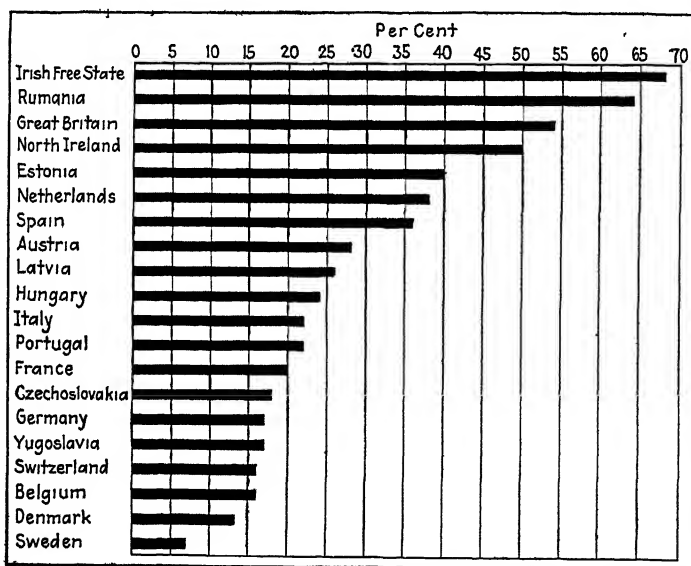
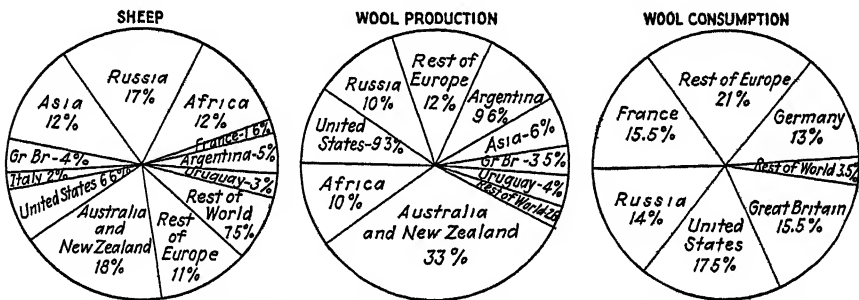


FIG. 45 —Permanent pasture and meadow, percentage of total area (Data from Huntington and Williams' *Business Geography*)

indeed in the west it remains only where soil conditions are unfavorable to agriculture (Fig. 45). In the Baltic states and Russia the cleared land is used extensively for the growing of forage and root crops, a large part of which are fed to cattle (Fig. 49). In addition flax for fiber and the hardier cereals, namely, rye, barley, and oats, are grown. In Denmark, Belgium, France, and especially Germany, this type of forest has received considerable care, the more valuable conifers being protected. Indeed considerable areas in this zone, such as sand-dune areas including the "landes" of southwestern France, have been planted with trees in rows, and the forest itself is really a phase of agriculture, which yields a crop of wood and turpentine of relatively high value per acre (Fig. 170).

The deciduous forest lies next south of the zone of mixed forest just mentioned. It has been largely cleared off because in general the oak, linden, beech, elm, and other trees of this type of forest thrive on land which is well suited to crops. The warmer lowlands of the north European Plain with their great agricultural development were originally nearly everywhere occupied by this type of forest. The type of agriculture displays, however, considerable regional contrast. In England, Belgium, Netherlands, and the northwestern part of France (Flanders), a very intensive type is carried on, with a strong emphasis on live stock. Dairy cows predominate in the wetter areas, and sheep in the drier (Figs. 46 to 48). Farther east, in Germany and Poland, on the sandier soils especially, the potato and sugar beet are grown intensively and rye widely but not so intensively. Swine are raised in exceptional numbers there. Still farther east, in Russia, the agricultural practice followed is much less intensive or specialized (Fig 50).



FIGS 46 to 48 — Percentages of the world's sheep, wool production, and wool consumption, 1925 to 1927

The Prairie.—On the south the western part of the deciduous forest zone passes through a transition forest type into the Mediterranean scrub forest, but in Hungary, Rumania, and Russia a belt of prairie intervenes. The western transition area includes the oak forests of Portugal, upon which are pastured many swine. Natural or artificial clearings in this transition zone produce much corn in northern Iberia and southwestern France, for the climate approaches that of the prairie states of the American corn belt. The Russian prairie includes the western more humid part of the belt of black earth soils, which is the best agricultural region of Russia. Wheat is grown extensively, especially in Ukraine (Fig 262). The prairie zone narrows decidedly toward the east from Ukraine but is everywhere extensively farmed in Russia. In Rumania, Hungary, and southwestern Russia considerable land is devoted to corn (Fig 256).

The Steppe.—Southeastern Russia contains a considerable area of steppe. These are grassy plains covered with short grasses or with scattered clumps of tall grasses, between which the ground is largely bare.

This area is often too dry for crops, and the more nearly the Caspian Sea is approached, the more frequent are the crop failures. In the better parts of the steppe the average yields are low. In its poorer parts they are so low that the chief dependence of the population is on grazing. Sunflowers, barley, and various other hardy plants are grown increasingly, however, as the population pressure becomes more intense. Recently, the Soviet Government is raising, with the help of the most modern machinery for extensive farming, considerable winter wheat during

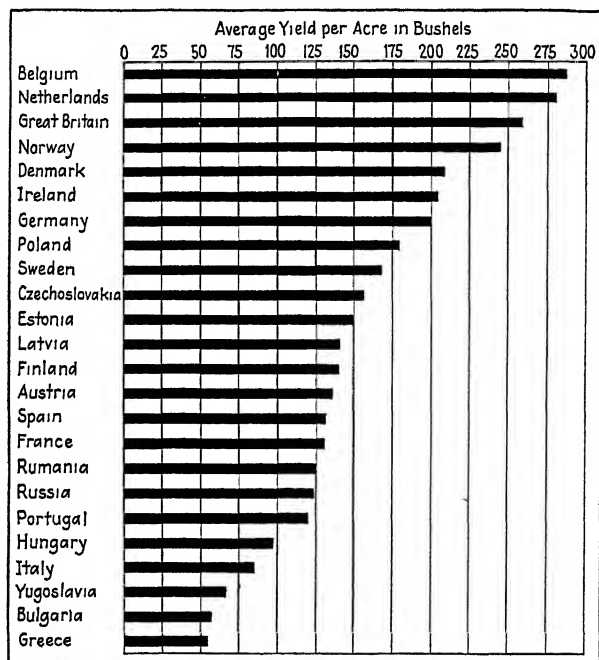


FIG 49 —Potatoes, average yield 1922 to 1928 The countries near the southern shores of the North Sea rank highest, and, with slight exceptions, the decline is rather steady in all directions therefrom. The yield is lowest at the southeast (The post-war average yield is higher than the prewar except in Germany, Hungary, Italy, and Switzerland)

favorable seasons. A part of the plain of Hungary is also dry enough so that it is devoted to grazing rather than to crops (Fig. 254).

The Mediterranean Scrub.—The Mediterranean type of vegetation is characterized by scrubby trees, especially the evergreen oak, chestnut, laurel, and in the warmer places, the olive. Quite as representative are the numerous bulbous perennials like irises. These are conspicuous in the spring because of their leaves and showy flowers, but when the summer drought sets in, they die down and only the bulbous root remains. The hyacinth, tulip, leek, and onion are other well-known examples. The Mediterranean trees are drought resisting, and have leaves that are either

thick and shiny or small and pubescent. Their nutty seeds, such as the walnut and chestnut, are valuable sources of food. In case of the olive the cover of the seed produces a valuable oil. Large numbers of swine are reared in the oak forests of the Balkan Peninsula especially, and cork is removed extensively from one species of oak in Spain and particularly in southern Portugal (Fig 52).

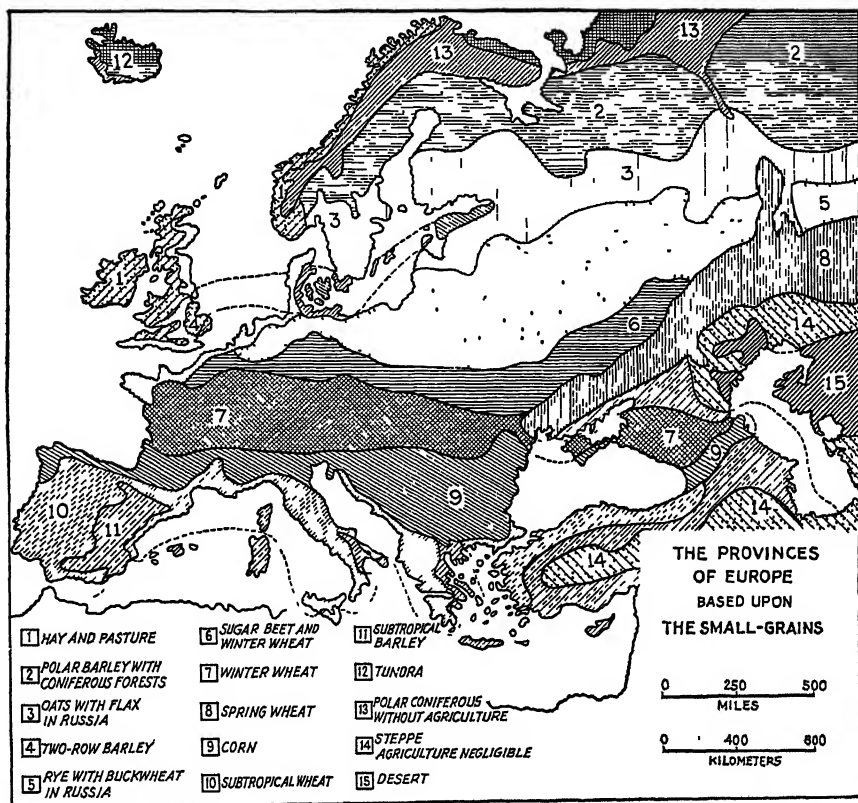


FIG 50—Agricultural regions, generalized (From D Jonasson, *Agricultural Regions of Europe*, in *Economic Geography*, published by Clark University, October, 1925, by permission)

Among the trees and the bulbous perennials grow many small hardy shrubs and considerable wiry grass upon which browse large numbers of sheep, goats, and asses. These animals are especially numerous in the Balkan Peninsula.

Mediterranean Agriculture.—The agriculture of the Mediterranean region is dominated by the growing of winter cereals, the vine, tree crops, especially citrus, olive, mulberry, nut-bearing sorts, and grazing. The growing of lucerne (alfalfa) is also widespread. The cereals are sown in

the autumn, grow throughout the moist mild winter, and ripen as the dry summer comes on (Figs. 56, 57, 170). The peach and almond blossom with the first warm weather and ripen their fruit if possible before the



FIG. 51.—Terraced slopes in the Oporto district, Portugal.

drought of the summer. The olive is drought resistant but yields little except where watered by run-off or irrigated (Figs. 55, 279). The citrus trees are irrigated as is the mulberry and lucerne. Indeed throughout

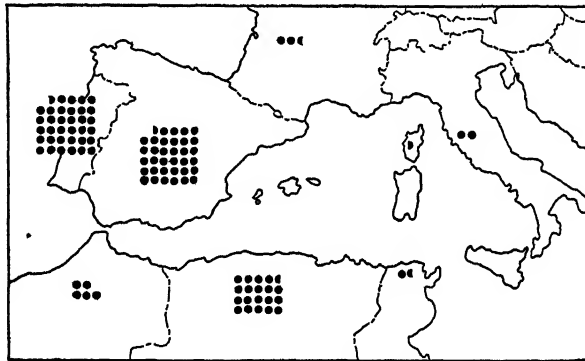


FIG. 52.—Cork oak trees Each dot represents 1 per cent of the world's total (Data from Zon and Sparhawk)

the Mediterranean region irrigation is carried on as extensively as possible among people with little capital with which to construct expensive reservoirs and other irrigation works (Figs. 51, 173). The mulberry is used chiefly as feed for the silkworm, which is extensively raised in Italy,

southern France, and southern Spain. The vine yields vast quantities of fruit that is eaten fresh, much that is dried into raisins or Grecian "currants," and still more which is used in making wine (Figs 174, 298) The chestnut is particularly important in Italy and southern France, and the Circassian, Persian or English walnut in the northern Balkan peninsula. The area of most intensive orange production is in southern Spain and of lemons in Sicily (Sicily); Figs 53, 280. Some lemons and more oranges are grown as far north as the Riviera of southeastern France and northern Italy, even though this area is as far north as Toronto and Milwaukee. This is possible largely because the lofty Alps shut out the cold winds from the north—in fact convert any winds which cross them into warm winds (foehns). Lemons and oranges are grown



FIG 53 —A Spanish orange orchard

thus far north only against south-facing walls or cliffs which receive a maximum of heat from the sun. The reflection from the Mediterranean or other water bodies often increases the heat received. Also the sea gives up enough heat to prevent the temperature from falling too low at night (Fig. 54)

Other special phases of the Mediterranean agriculture merit mention here; one, the extensive growing of vegetables and flowers which are sold in winter and spring in the cities of northern Europe. Many flowers are also used for the making of perfumery. Southern France yields most cut flowers and Bulgaria most perfumery. Another specialty is the growing of "Turkish" tobacco, especially in northern Greece.

Mountain Forests.—The remaining great vegetation types of Europe are the coniferous forest on the mountains and the Alpine meadows. The former resemble the northern coniferous forest in several respects

and might have been included with it. Coniferous forests occur, however, on the mountains which are high enough, even in southern Europe. They are extensively used especially in central Europe as a source of wood, but only a little agriculture is carried on in their midst. Most

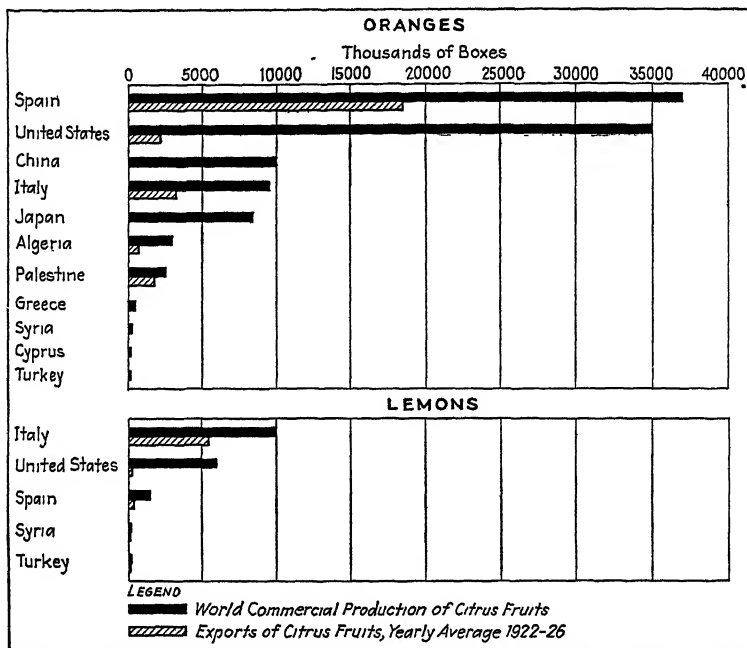


Fig. 54.—Production and export of oranges and lemons, average 1922 to 1926

crops are barred by the low temperatures, and grazing is limited by forest growth and the desire not to injure the young trees.

The Alpine Meadows.—Above the timber line on the mountains are meadows which contain a multitude of flowers that are very showy for

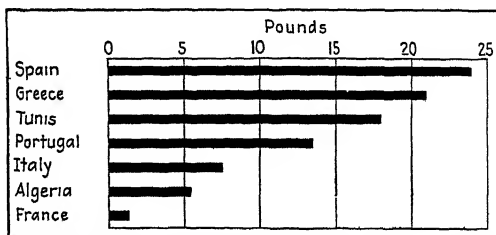


Fig 55 —Olive oil consumption, per capita, average 1923 to 1927

a short time in the summer, and also much grass. The meadows are used extensively for pasture during the summer. Goats, sheep, and especially cattle are driven up to them for a stay of a few weeks under the supervision of herders.

OTHER REGIONAL CONTRASTS IN AGRICULTURE

Another sort of survey of the agriculture of Europe is now desirable. It considers the regional contrasts in the intensiveness, the thoroughness, and the success of agriculture.

Contrast in Crop Yields.—It is rather astonishing to note to what degree and how systematically and progressively the per acre yield of crops declines in all directions from the countries bordering the southern part of the North Sea (Figs. 45, 49, 57, 297). Accompanying this is an equal deterioration in respect to live stock both in numbers and in quality, with a few special exceptions, such as the increase southward in mules, asses, and goats (Figs. 313, 314), and the fact that the Balkan Peninsula has even more sheep per square mile than the average for the North Sea countries, though no more than has a large part of Britain

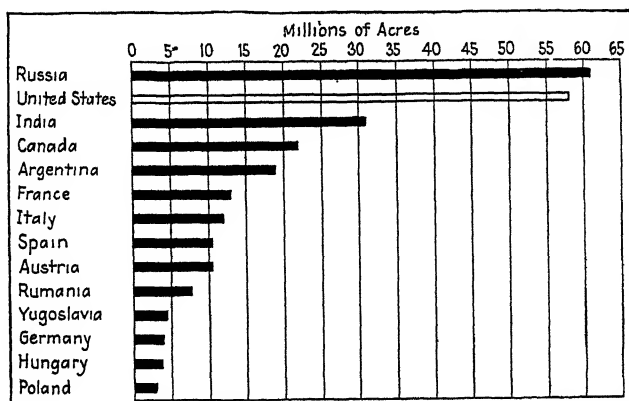


FIG. 56 —Wheat acreage, average of 1922 to 1928, millions of acres.

(Fig. 152) Of course the crops which are not adapted to the North Sea region can not show any such decline as one goes away from that region. Nevertheless around the North Sea and especially in Belgium a surprising area is under glass. This produces either crops such as grapes, which are not adapted to the region, or crops which are out of season. In such greenhouses it is quite probable that the yield per acre is higher than anywhere else on the continent.

Regional Contrasts in the Quality of Live Stock.—An important way in which the North Sea region leads in respect to live stock is that most of the important breeds were developed there. Of *beef cattle* the world's chief breeds are the Hereford, Aberdeen-Angus (blackpolled), and Shorthorn or Durham, all British. Of *dairy breeds* those most widely used are the Jersey and Guernsey, from the British Channel Islands, and especially the Holstein Friesian from Netherlands. The Shorthorn is the world's chief dual-purpose cow. Of *sheep*, all the leading breeds

are British in origin except one, the Merino, developed in Spain. But the variety of the Merino which is most widespread and valuable is the Rambouillet, which originated in northwestern France. Of *swine*, the important breeds are also from Britain except the American kinds developed therefrom. Of *horses*, the world's leading draft breeds are the Percheron from northwestern France, the Belgian or Flemish, and the Clydesdale and Shire from Britain.

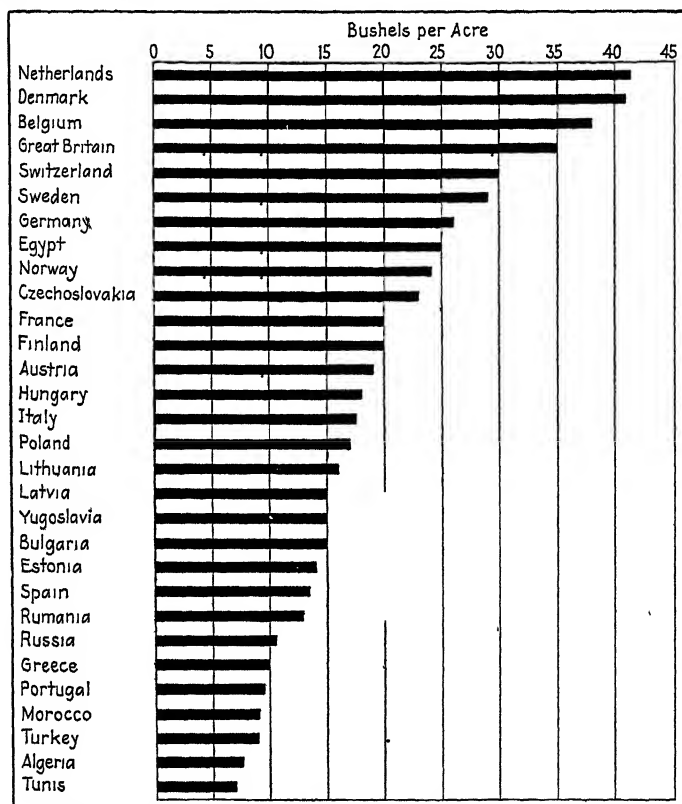


FIG. 57.—Wheat yield per acre, average of 1922 to 1926 inclusive, bushels. The decline with increased distance from the southern shores of the North Sea is shown rather strikingly

These breeds of live stock developed in the North Sea region and especially in Great Britain have spread widely over the world and are now much the most important except in certain tropical areas not adapted to them. This is because experience has proved them to be decidedly the most profitable, yielding more meat, wool, milk, or strength per unit of food and care than do any other breeds (Fig. 184).

Centers of the Production of Certain Crops and Animals.—Although many of the areas specializing in particular crops or farm animals have

been mentioned already, a summary of this topic may close the chapter.

Wheat, perhaps the most valuable crop taking Europe as a whole, is grown widely, but areas where it is particularly prominent are France, Italy including Sicily, southern Russia, the Hungarian Plain, and southern Rumania (Figs. 56, 57, 173, 262). *Rye*. Germany, Poland, and central Russia. *Oats*. The coastal region from western France to Denmark. *Barley*. Southern Russia (Fig. 263). *Corn*. Northwestern Portugal and adjacent Spain, the Po Valley, the Hungarian and Rumanian plains, the coastal parts of central Italy (Fig. 258). *Potatoes*. Germany, western Poland, Netherlands, Belgium, Ireland, and less intensely from France to central Russia (Figs. 49, 252). *Grapes*. Southern France (particularly in the extreme south and near Bordeaux), Italy, Iberia (Figs. 174, 298). *Sugar Beets*. Extreme northeastern France, central Germany, central Ukraine (Figs. 193, 221). *Cattle*. Ireland to Brittany and thence east to Denmark and Germany. *Swine*. Belgium, northern Germany, southern Denmark (Fig. 196). *Sheep*. Britain, northern Netherlands, the Balkan Peninsula, especially the northern part, and Turkey in Europe (Fig. 152).

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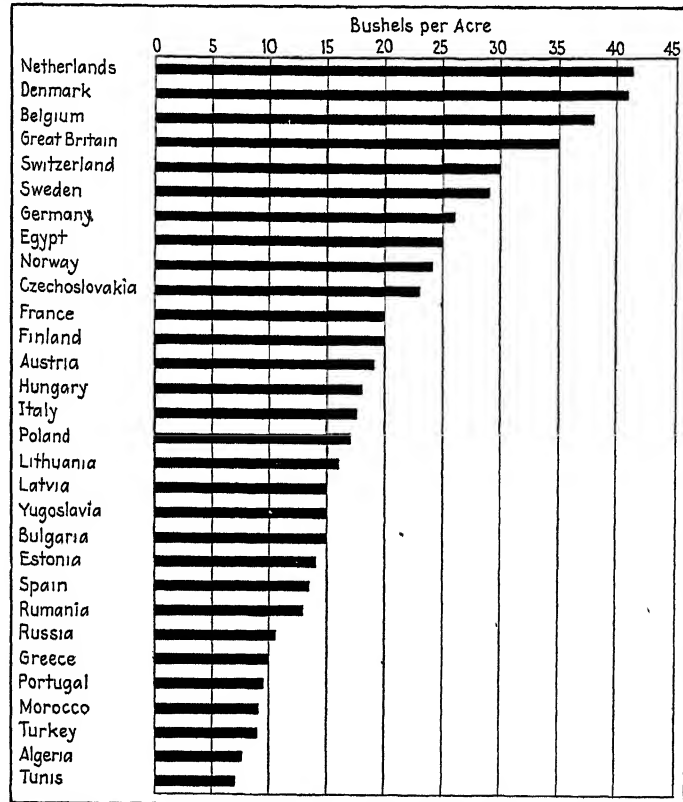


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Centers of the Production of Certain Crops and Animals.—Although many of the areas specializing in particular crops or farm animals have

been mentioned already, a summary of this topic may close the chapter.

Wheat, perhaps the most valuable crop taking Europe as a whole, is grown widely, but areas where it is particularly prominent are France, Italy including Sicily, southern Russia, the Hungarian Plain, and southern Rumania (Figs. 56, 57, 173, 262). *Rye*. Germany, Poland, and central Russia. *Oats*. The coastal region from western France to Denmark. *Barley*. Southern Russia (Fig. 263). *Corn*. Northwestern Portugal and adjacent Spain, the Po Valley, the Hungarian and Rumanian plains; the coastal parts of central Italy (Fig. 258). *Potatoes*. Germany, western Poland, Netherlands, Belgium, Ireland, and less intensely from France to central Russia (Figs. 49, 252). *Grapes*. Southern France (particularly in the extreme south and near Bordeaux), Italy, Iberia (Figs. 174, 298). *Sugar Beets*. Extreme northeastern France, central Germany, central Ukraine (Figs. 193, 221). *Cattle*. Ireland to Brittany and thence east to Denmark and Germany. *Swine*. Belgium, northern Germany, southern Denmark (Fig. 196). *Sheep*. Britain, northern Netherlands, the Balkan Peninsula, especially the northern part, and Turkey in Europe (Fig. 152).

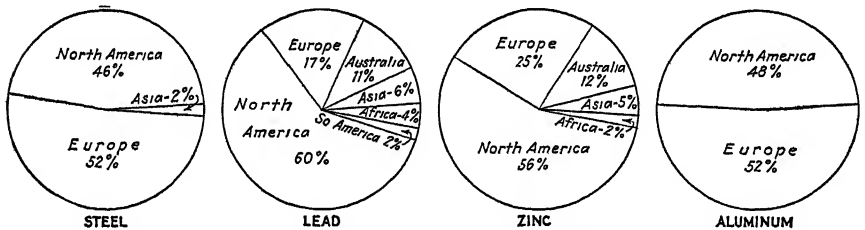
CHAPTER V

MINERALS AND WATER POWER

Europe is the world's greatest mining camp. We rarely think of it in that way, for places like Australia, Mexico, the western United States, and South Africa usually occur to us when mines are mentioned. That, however, is merely because in those regions mining is the main or at least a major industry, whereas in Europe it is less important than agriculture, manufacturing, or commerce. Yet of the total mineral wealth taken from the ground, Europe digs out approximately one-half.

EUROPE'S PERCENTAGE OF PRODUCTION

Of the more important mineral raw materials, Europe's production in the most recent year for which full information is available (1928 or 1926) amounted to more than four-fifths of the world's output of four;

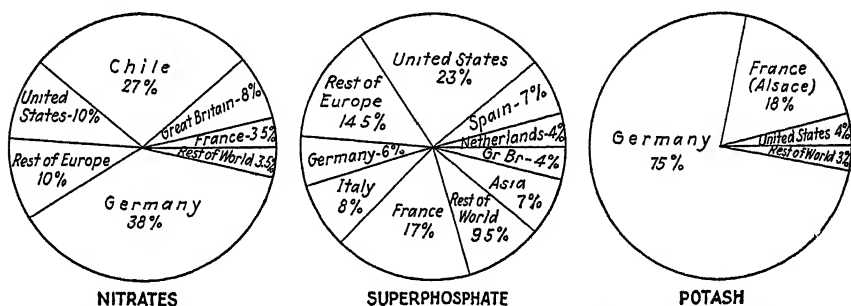


Figs 58 to 61 —Percentages of world's total production of essential metals by continents, 1927 or 1928

namely, potash, 96 per cent, mercury, pyrite, and fluorspar, each about 87 per cent. It produced more than one-half of the supply of seven; namely, iron ore, 57 per cent; aluminum ore (bauxite), 57 per cent; nitrate, barite, graphite, each about 60 per cent, magnesite and china clay, each about 70 per cent. Europe produced practically half of the coal and more than a quarter of the gypsum, 40 per cent; manganese 36 per cent; talc 35 per cent; and zinc, 26 per cent. It also produced important parts of the phosphate, sulfur, 20 per cent, chromite, 18 per cent; lead, 17 per cent, petroleum, 10 per cent; copper, 9 per cent; antimony, 9 per cent; asbestos, 7 per cent; and mica, 6 per cent. Finally, production of about 3 per cent of the world's tin and tungsten were also scarcely insignificant as these are relatively rare metals (Figs. 58 to 61).

The foregoing 26 minerals include all of those selected for discussion in the survey of the most important mineral raw materials made by the U. S. Department of Commerce in 1929 except nickel, the production of which is almost restricted to the Sudbury district of Canada and the South Pacific island of New Caledonia.

A more complete survey of the mineral industry in 1913 was published by the U. S. Geological Survey in 1921 as part of the unique World Atlas of Commercial Geology. It shows that in 1913 among minerals not mentioned above, Europe supplied 65 per cent of the arsenic, 99 per cent of the oil shale, 93 per cent of the platinum, 25 per cent of the molybdenum, 7 per cent of the silver and 1 per cent of the gold. In the long list studied by the U. S. Geological Survey vanadium alone was supplied by Europe to the extent of less than 1 per cent, and of only gold, nickel, tin, and vanadium did Europe produce in 1913 less than its proportion based on area. Of only four others, chromite, copper, phosphate, and silver, did it produce appreciably less than its share on the basis of



Figs 62 to 64 — Mineral fertilizers, percentages of world's production, 1928

population. Since 1913 Europe's production of phosphate fertilizer, to a considerable extent as a by-product of the smelting of phosphorus bearing iron ores, has increased so greatly that now it is more than half of the world's total.

In brief, in proportion to area Europe produces more than four times her share of more than half of the important minerals. Of coal and iron ore and the critical mineral plant fertilizers, which are by far the most important, her production is over eight times her share (Figs. 62 to 64). Europe is especially ahead in the use of low-grade deposits, of which the world possesses much more than of high grade. Of lignite and of oil from shale Europe now produces nearly the entire world output.

EUROPE'S MINERAL RESOURCES COMPARED WITH THOSE OF OTHER CONTINENTS

The mineral resources or reserves of a country are a very different matter from its actual production. The production shows little as to the

actual amount of ore in the rocks. Europe has developed her resources so much more fully than has any other continent that in some instances, such as magnesite, pyrite, oil shale, platinum, and potash, she produced in 1913 almost the total output, although her actual supplies are perhaps only a few per cent. Potash is a striking example of this. As late as 1914 the whole world relied on the supplies which Germany had developed at Stassfurt. Then the war stimulated a search and deposits of considerable magnitude were found in the United States and Africa. In the vast desert regions of Asia, north Africa, and Australia, the climatic conditions have been so favorable to the formation of salt lakes that there is possibly even more potash in those regions than in either Europe or

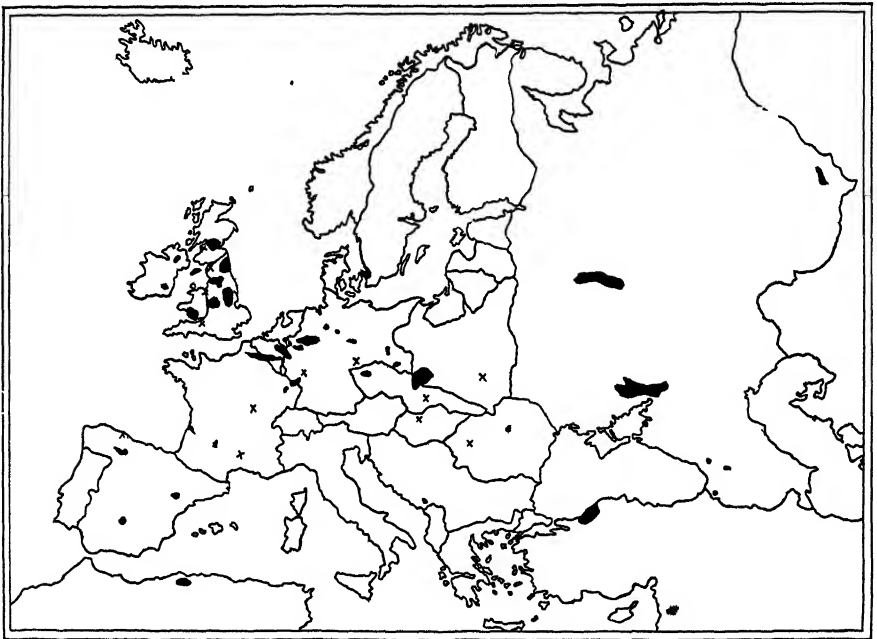


FIG. 65 —The coal fields, larger areas underlain by coal in black, smaller ones shown by crosses (Area of coal fields does not show amount of coal) (From *U S Geological Survey, World Atlas of Commercial Geology*, 1921)

the United States. It will remain undeveloped, however, until reached by the same conditions of energy and progress which caused Europe's supplies to be developed first, and then those of the United States. Taking into account the completeness with which Europe's mineral resources are known and the paucity of our information as to the other continents, especially Asia, Africa, and South America, it appears that, aside from coal and iron, Europe is probably the poorest of the five large continents in mineral wealth. In iron, North and South America at least surpass Europe, and in coal, North America far surpasses.

According to the authentic World's Coal Resources, International Geological Congress, 1913, Europe has only about 17 per cent of the world's reserves of high-grade coal, yet she produces almost 50 per cent of the annual output (Fig. 65).

CONDITIONS WHICH GOVERN EUROPE'S PRODUCTION OF MINERALS

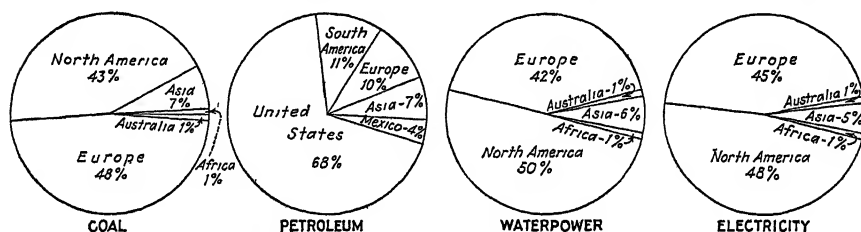
Having seen that Europe produces vastly more than any other equal area, we shall next study the conditions which govern her production. Two are of chief importance: the accessibility of the minerals in the sense of the extent to which they are visible on the surface and hence can easily be discovered, and second, the mental and physical activity of the people, and their advancement, with their consequent desire to use minerals on the one hand, and their ability to find and exploit them on the other.

The accessibility of minerals, as here defined, depends on the extent to which they are hidden by soil and vegetation. In this respect Europe is at a disadvantage. Most of Europe is covered with deep soil—glacial, fluvial, or residual—while generally there is a thick cover of vegetation which makes it difficult to discover whether or not the rocks of a given area really contain any metals, fuels, or other materials that man can utilize. In North America, Asia, and Australia, on the other hand, vast areas where the rocks are highly mineralized are relatively dry. Hence, the soil is thin or lacking and the prospector, being able to see the nature of the rock, can the more easily search thoroughly. Even in Africa the areas where such intensive search is possible are far larger than in Europe, although other vast areas of tropical forest will long discourage the prospector. Only in South America is the continent as a whole so largely covered with vegetation and deep soil as is Europe.

Even in Europe there are two large areas where the soil is generally thin and the cover of vegetation scanty, the northwestern highland on one side and the southern peninsulas on the other. In the northwest the ice sheet carried away the soil from the more rugged regions and hence vegetation is locally absent. In the south the dry climate interferes with the growth of thick vegetation, and the occasional torrential rains, as we have seen, carry away much soil. If accessibility alone were the main factor, and if the mineral wealth of Europe were evenly distributed, we should find the greatest mining industries in northern Scotland, Norway, Sweden, and Finland, on the one hand, and in Spain, Italy, and the Balkan Peninsula on the other hand, while central Europe, even in its mountainous portions, would be poor. The actual facts, however, are utterly different, for the order of importance is first the center, then the south, and last the north.

The Human Activity Factor.—The most important factor in Europe's striking dominance in the field of mineral exploitation apparently is

the energy and advancement of her people. Because the people have these qualities they have analyzed every kind of rock and have discovered for the first time at least nine-tenths of all the chemical elements including metals. They have, also, discovered most of the uses for the minerals, which uses have encouraged a systematic search for additional valuable deposits. In the other continents the typical searcher for mineral wealth is the prospector who traverses the half-naked mountains on foot and looks everywhere for bits of rock that seem rich. In Europe, on the contrary, the typical searcher is the trained geologist or mining engineer. Of course the scientific study of the earth's crust is now progressing steadily all over the world with the help of Europeans, but nowhere else is it so advanced. Europe has been examined so thoroughly that it cannot expect to yield the great



Figs. 66 to 69 — Percentages of world's total production of sources of power, by continents, 1928

discoveries of new and easily exploited mineral wealth which are sure to occur in the other continents.

DISTRIBUTION OF PRODUCTION

The production of minerals in the countries yielding most is given in Table II. The areas of chief production of the chief minerals are indicated in Figs. 65, 157 and 201.

In the importance of all mineral production combined there are five belts corresponding more or less closely with the belts of relief discussed in Chap. III and yet differing from them in certain respects. From north to south these are as follows: (1) the northern slightly mineralized belt; (2) the north central belt of coal and iron; (3) the central belt of varied minerals; (4) the poorly mineralized mountain core; (5) the mining regions of the southern peninsulas.

The Northern Slightly Mineralized Belt.—This belt includes most of the northwestern highland and most of the northern lowland (Fig. 36). The highland portion consists chiefly of northern Scotland, Norway, and Sweden. Despite the relative accessibility of this region to large numbers of exceptionally energetic, competent, and educated people, mining is rare. The most important mines are in the far northern Swedish

TABLE II—MINERAL PRODUCTION IN EUROPE
(Thousands of metric tons)

	Coal	Lignite	Iron ore	Lead	Zinc	Copper	Aluminum (al) petroleum (1,000 bbl)
Great Britain							
1913	292,000		16,000	18	7	0 4	12 al
1928	242,000		11,000	16	1	0 2	
Germany							
1913*	192,000	87,000	36,000	51	88	27	
1913	142,000	87,000	7,300	48	88	27	
1928	151,000	166,000	6,500	50	110	26	31 al
France							
1913*	40,800	4,000	22,000	9	18		
1913	44,000		43,000				
1928	52,000	4,000	49,300	20	4	3	27 al
Italy							
1913	701	317	600	22	54	2	
1928		555	609	21	72	0 4	
Spain							
1913	4,300		10,000	186	48	31	
1928	6,600		5,500	113	44	58	
Russia							
1913*	33,800		9,500	3	12	34	68,000
1913	29,000		9,200				68,000
1928	35,000		6,000	18	2	13	86,000
Belgium							
1913	23,000		150	15	0 4		
1928	27,500		150	88			
Sweden							
1913	360		7,500	2	15	4	
1928	270		8,000	0 5	9	4	
Norway							
1913			540		0 2	3	
1928			500	0 4	5	0 2	20 al
Austria							
1913	87	2,600	2,000	4	21	3	
1928	202	3,200	1,900	8	1	3	
Poland							
1913	41,000		474	42	192		7,900
1928	40,600		700	36	162		5,800
Rumania							
1913	453	2,600	465				13,500
1928	374	2,800	97	1 3		0 2	30,600
Czechoslovakia							
1913	14,000	23,000	2,200				
1928	15,000	21,000	1,800	2 3	3	0 3	
Greece							
1913			313	18	18		
1928		143	124	5			
Hungary							
1913	840	6,200	400				
1928	780	6,500	203				

* Prewar boundaries

province of Norrbotten which supply about 5 per cent of the world's output of iron ore. Another 1 per cent is obtained in central Sweden (Fig. 244). About 7 per cent of the world's pyrite comes from central Norway and 2 per cent from Sweden. About 1 per cent of the zinc comes from the island of Gotland of southern Sweden.

The rest of the poorly mineralized northern belt comprises almost the whole of the northern lowland. Southern and central Ireland may be included, but they are cut off from the remainder by the coal and iron belt. Then from southeastern England and Holland the non-productive belt extends eastward and northeastward including Denmark, southern Sweden, northern Germany, much of Poland, and northern Russia. In this belt there are a few deposits of secondary importance including some brown coal near Moskva (Moscow), but throughout the whole area the bed rock is nearly everywhere deeply covered. Hence, nearly half of the area of Europe produces almost no minerals despite the intelligence and activity of its population. Although Denmark and Netherlands stand near the forefront of modern progress, they have attained this rank almost without the help of mines of their own, although in recent years Netherlands has mined some coal.

The Belt of Coal and Iron.—The belt of intensive coal and iron mining includes the Scottish lowland, southern Wales, and most of England except the southeastern plain. Across the channel it includes Belgium, northern France, and a strip across western Germany to Saxony, thence along the border of Germany and Czechoslovakia to Poland (Fig. 65). The Donets basin north of the Sea of Azov may be considered as an outlier. Although this belt is by no means continuous, it is sufficiently so to warrant us in thinking of it first as a whole and then in its separate parts.

The outstanding feature of the central belt is that it contains both coal and iron, and that they are so near to each other that the iron ore can be brought to the coal at slight expense. The coal, however, is the primary factor. Equally good deposits of iron are found in other parts of Europe, such as northern Sweden and northern Spain, but nowhere else is there any such coal.

Over 40 per cent of the world's entire mining output comes from small areas comprising perhaps a thousandth part of the lands of the earth. The chief of these areas is where high-grade coal and good iron are found close together. In Europe these areas are (a) England, Wales, and Scotland; (b) the world's greatest industrial region which is divided among three countries, Belgium, northern France, and western Germany; (c) the relatively small but highly active industrial area of Saxony; (d) Upper Silesia, where three nations, Germany, Czechoslovakia, and Poland divide the industrial area; and (e) the Russian coal and iron fields of or near the Donets basin. So important are these that nearly half

of the mining, metallurgy, and metal manufacturing of the world is carried on in them (Figs 66, 69).

The Belt of Varied Minerals.—South of the north central belt of coal and iron the old mountains of central Europe contain a highly varied assortment of minor minerals. France, chiefly from this belt, supplies about 28 per cent of the world's arsenic, about 34 per cent of the bauxite, 18 per cent of the potash, from Alsace, some 9 per cent of the antimony, 5 per cent of the pyrite, and a little gold and silver. In the same way Austria and Czechoslovakia provide about 40 per cent of the magnesite; the northeast margin of Italy about 45 per cent of the mercury; while Bohemia, Austria, and southern Germany together furnish about 40 per cent of the graphite; Germany more than three-fourths of the potash,

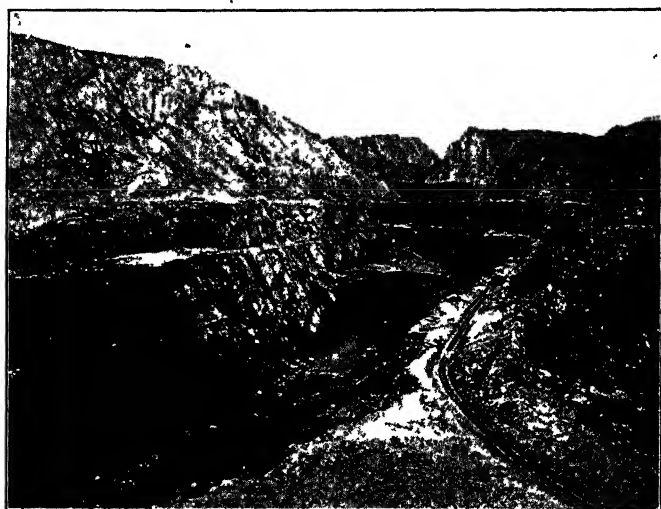


FIG. 70 —An open pit iron mine near Rio Tinto, Spain.

and Silesia about 15 per cent of the zinc. The petroleum fields of Poland and Rumania also belong within this general belt, and supply about 3 per cent of the world's total.

The Poorly Mineralized High Mountains.—In Switzerland and Bulgaria the production of minerals is so small that it is almost nil. The high Pyrenees contain only a few minerals, although their flanks are locally rich. Moreover, far to the east the mountains of the Krim (Crimea) and the Caucasus have thus far yielded almost no minerals. Considerable beds of ore may, of course, be found in these mountains, especially in the little known eastern ranges. For example, the world's largest single source of manganese ore was, in 1913, near Kütai in the southern foothills of the Caucasus near the eastern end of the Black Sea.

It does not seem probable, however, that the cores of Europe's higher mountains will ever be great mining regions

The Mining Regions of the Southern Peninsulas.—The number of minerals produced in appreciable quantities is large in all the countries of the southern peninsulas: Spain, 16, Italy, 15, little Portugal, 13; and tiny Greece, 9. Greece furnishes about 15 per cent of the world's magnesite, 5 per cent of the chromic iron ore, 2 per cent of pyrite, and a little lead.

In the western peninsula, the iron mines of northwestern Spain near Bilbao have constituted a really important mineral resource, which, however, has benefited England more than Spain, for England has the coal with which to smelt the ore and the energy, skill, and capital to develop it (Fig. 70). The pyrite, about 60 per cent, mercury 40 per cent, and lead 9 per cent helped give Spain a high rank in 1926 as a producer of minerals other than coal and iron. Spain's copper, 4 per cent, makes it the most important European country in the metal which ranks next to iron in importance, while 4 per cent of all the world's zinc is a thousand times as large as Spain's percentage of the world's land area (Fig. 283). Finally the tungsten of the Iberian Peninsula, found chiefly in Portugal, amounts to about 3 per cent of the world's supply.

In the same way the sulfur, 14 per cent, mercury, 45 per cent, and graphite, 8 per cent, from Italy are relatively large resources; as to pyrite and zinc, both about 5 per cent, Italy is about twenty-five times as important as its size would warrant.

The relatively high development of the mineral resources of the southern peninsulas is due to a combination of conditions, some of which are often overlooked. The population is fairly dense, for even in Greece it is over 100 to the square mile. The people are intelligent and progressive compared with those of many parts of the world. All of the countries have long been inhabited by comparatively progressive people so that there has been a chance for full development. The dry climate, as we have seen, causes the vegetation and the soil to be scanty on the hillsides so that the rocks are exposed wherever there is a steep slope. This is highly important, for the ability to see the rocks aids greatly in detecting unusual minerals which occur in small deposits. The prevalence of sheep and goats is also of importance. The shepherds with their flocks scour the mountains, and often amuse themselves by gathering and piling up rocks. Any minerals of unusual color or luster are almost sure to attract their attention, and thus, in progressive lands, ultimately to become known to others.

HOW MINING AND MINERALS HAVE INFLUENCED EUROPEAN CIVILIZATION

Stability of Exploitation.—Many of the effects of mining and of the use of minerals need only to be mentioned. Everyone knows that when

new mineral fields are discovered there is usually a rush to them, and at such times lawlessness is likely to be rampant. In Europe, however, this sort of thing has not occurred on a scale at all comparable to the well-known instances in the United States, Alaska, Australia, and South Africa. The reason is threefold. In the first place, Europe's mineral wealth has been developed much more gradually. It began to be developed long before extensive mining was done in the other continents, and before modern means of communication and transportation had made it easy to spread the news of mineral discoveries and then for people to flock in rapidly. In the second place, the regions where Europe's minerals are found were nearly all densely populated before the minerals were developed, so that the forces of law and order were well established; the methods of acquiring land stereotyped, and there was little chance to gain wealth by illegal methods. Third, Europe's chief mineral wealth consists of materials where prolonged work, much machinery, and a well-developed system of transportation are necessary to make it pay. Rich beds of gold, silver, or diamonds where a man can hope to make a fortune in a day have not been discovered in Europe. Few people are moved to give up their regular pursuits on the occasion of the discovery of coal, pyrite, potash, iron, and other minerals of low value per ton. Hence, European mining has lacked the more spectacular features of the mining booms of newer countries. There has been less excitement, less gambling, less drunkenness, and less enthusiasm. The miners are comparatively homogeneous, and only in a few cases, such as the Germans in Transylvania, do they come from a distance. Briefly, mining differs from manufacturing and commerce much less in Europe than in most parts of the world.

On the other hand, the harsh sordid features of mining are developed in Europe quite as highly as anywhere else. Whether the miners are digging coal in Wales, iron in Lorraine, lead in Upper Silesia, or manganese ore in Russia, the work is hard and poorly paid. The men who do it are comparatively ignorant, because there is almost no incentive to the better educated to stay in it. The miners live in miserable houses, they are often idle for long periods; and they are politically restless.

Effect on Rank of Countries.—One more question remains to be answered in respect to the importance of Europe's minerals. How far has their development caused a change in the respective positions of the various countries of Europe in the scale of progress? To answer this, let us go back to about A.D. 1750. At that time, iron was still rare, and was used chiefly for weapons, tools, hinges, horseshoes, nails, and a few simple machines. Such a thing as an iron bedstead, a steel rail, or a steel frame for a building was unheard of. Nails were so great a luxury that they were used very sparingly. Beams were still morticed together in many parts of Europe and were held in place by wooden pegs. Pins were

so scarce that many proverbs grew up about saving them. In 1750 coal was burned by a few people, chiefly in England, who lived close to the places where it cropped out most conspicuously. In England it was carried in small quantities to the cities where it was one of the luxuries of the well to do. Otherwise, practically all the inhabitants of Europe burned wood, and smelted what little iron they had with charcoal. Probably not one person in a thousand outside of England made any real use of coal, and perhaps not one in a hundred had ever seen it burn. Of course, we have no data for a reliable estimate of how much it was actually used, but certainly it played an almost negligible part in the life of Europe as a whole.

Comparisons of Earlier and Present Rank.—Consider, now, the distribution of civilization two centuries ago, before iron and especially coal had begun to play their modern roles. Machinery then consisted only of such simple things as looms run by hand and flour mills run by water or wind; people still traveled on horseback or in simple horse-drawn vehicles little more advanced than those of the days of Caesar. So primitive was life that a country family equipped with an axe, a knife, chisel, spade, plough, two sheep, and a cow could provide for itself practically all the necessities of life, including home-grown food, homespun clothes, and a homemade house, barn, and mill. Yet the distribution of civilization was not essentially different from what it is today. The countries bordering the southern shores of the North Sea led in political and religious liberty, in commerce and manufacturing, in culture and clear thought as to the great problems of human progress, and science. Then, as now, the Netherlands was prominent in commerce. Switzerland was famous for its democratic spirit, its religious toleration, and its devotion to science; while Norway, Denmark, and Sweden were all known as sturdy, self-reliant nations where the laws were well obeyed, life and property were comparatively safe, and education was rapidly advancing. At that time, Spain had already fallen from her brief supremacy. Italy, though fairly progressive in the north, was afflicted with misgovernment and poverty in the south. Ireland, then, as for several previous centuries, was chronically afflicted with social and economic ills which were invariably attributed to English bad government. In the east, Russia was hailed as a coming nation, but was struggling along in the rear guard of European civilization; the Balkans were afflicted with the present Balkan maladies; Greece was groaning under the heel of Turkey, but her citizens were making money out of the Turks in Constantinople, just as they do today; and some Turks were massacring Armenians and misgoverning other people, quite as ruthlessly as during the twentieth century.

Thus, in all parts of Europe the fundamental conditions were surprisingly like those of today. Politically, there have been great changes,

but essentially, places that had the greatest freedom then are those of greatest freedom today. The same is true socially, commercially, educationally, religiously.

Mineral Wealth Increases the Contrasts in Advancement.—Thus it appears that so far as minerals are concerned, the chief difference is this: when the possibilities of iron and coal were discovered, the nations already

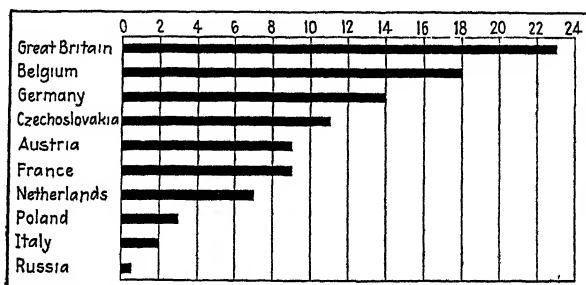


FIG 71.—Use of power, estimated number of times that the power obtained from coal, oil, horses, etc., is greater than human muscular power used (Data from Killough and Killough)

progressive and dominant seized upon them. In fact, only those nations had the ability to see how the two great minerals could be used extensively (Fig. 71). Their use has brought many new problems and powers to all the world, especially to their users. It has widened the gap between the strong and the weak; it has given the nations which were leaders in 1750 a firmer hold on all the means of subsistence and on commerce, industry, and science, as well as increased strength in war. It has done just what new opportunity always does; that is, it has benefited the strong

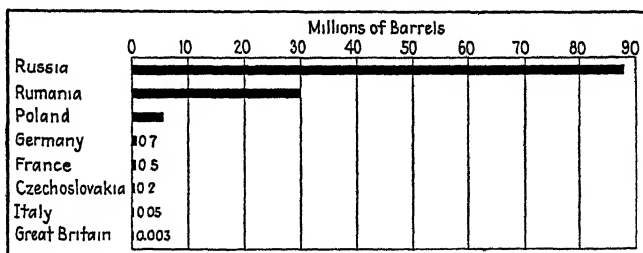


FIG 72.—Petroleum production, millions of barrels, 1928 for three leaders, 1926 for others.

more than the weak. Nevertheless, the benefit to some countries without coal and iron has been almost as great as to those with an abundance. Denmark, Norway, and Switzerland have gone ahead with strides almost as rapid as those of England, Belgium, and France. They have gone ahead faster than Poland and Russia, even though those two countries have good supplies of coal and iron. Thus, minerals, like the relief of

the lands and the quality of the soil, have been a great help to the people of Europe who possessed the capacity and energy to use them, but they have not determined the location of civilization or even the amount of progress (Fig. 72).

WATER POWER

Comparative Rank.—Europe is surpassed only by North America in the amount of developed water power, having about 13,000,000 horsepower in 1929 in contrast with about 18,000,000 in North America and only 3,000,000 in the rest of the world combined. Europe leads in the percentage of the potential power which is now put to use and is surpassed only by North America, Asia, and Africa in potential power available, according to the official estimates presented by the U. S. Geological Survey. Europe, with 58,000,000 horsepower is credited with almost as much water power as Asia, which is $4\frac{1}{2}$ times as large, and more than South America. North America, considerably over twice as large, has only about one-fifth more water power, and Africa, about three times as large, has about three times as much potential power.

Favorable Distribution.—Europe is fortunate in the possession of numerous power sites well distributed, being most numerous in the sections where coal or oil are relatively scarce or lacking. The northern highland and the south central chains of young mountains have most water power, and the great coal fields have little, except the Donets field of southern Russia. No large section of Europe except perhaps northern and eastern Russia lack both coal and considerable water power.

Reasons for Europe's Rank.—The facts that although more than half of Europe is relatively near sea level, less than 600 feet above sea level, only one-sixth more than 1,500 feet above sea level, and the average elevation less than 1,000 feet, suggest that the explanation of the relatively large amount of water power on this one-fifteenth of the land area of the world must be the exceptionally favorable features of the climate and the surface in spite of its small vertical scale.

Effects of Topography.—The number and distribution of the water-power sites reflect the effects of relief, glaciation, and climate. First, let us consider the great number of sites. About half of Europe was glaciated in relatively recent geological times, and as glaciation always disarranges the drainage the glaciated northern part of Europe and the glaciated mountains abound in power sites. Furthermore, the numerous lakes and marshes serve as retarders of the run-off and thus make the stream flow more regular and valuable for power (Fig. 73). Among the inhabited continents only North America was so largely glaciated. Another condition also increases the number of water-power sites, namely, the juxtaposition of low plains and mountains. All of the

chief mountains are closely approached on at least one side by plains which are almost at sea level. None stand upon extensive high plateaus, as is true of many of the mountains of other continents. This striking feature of Europe's relief is clearly shown on the physiographic diagram in the pocket.

One phase of the relief, however, diminishes the available water power, although it leads to a scattering of sites. This is the fact that



FIG. 73—Harspranget Falls at Porjus, northern Sweden. A 136,000 horsepower power plant is to be erected here to supply the electric railways and mines of northern Sweden.

the proportion of Europe rising above 1,500 feet is very much less than that of any other continent except Australia. Hence, only a small fraction of the total precipitation on the continent needs to descend far to reach sea level. In contrast, a major part of the total precipitation in Africa must descend more than 2,000 feet. In fact the percentage that must descend 5,000 feet is more than the percentage that needs to descend 1,500 feet in Europe. Although Asia has by far the largest lofty plateau, this plateau unfortunately receives very little precipitation except on a part of its southern and eastern edges. Moreover, these exceptional parts receive most of their precipitation during the summer

when the monsoon winds blow from the ocean, and, hence, yield relatively small amounts of water power in other seasons. Such water power available only part of the year is as yet of value only in areas which are highly developed industrially.

Climatic Effects.—The regular rainfall of northwestern Europe, coming as it does in almost equal amounts in all months, is very favorable for water power. The cool summers, which retard evaporation, and the mild winters, during which stream flow is seldom seriously interfered with by ice, are also highly desirable from the standpoint of water power (Fig. 74). The dry summers of southern Europe are decidedly unfavorable, but, fortunately, sufficient snow accumulates during the cooler months on the higher mountains, especially the Alps, Pyrenees, and Caucasus, to furnish enough run-off to maintain sizable rivers throughout most if not all of the summer. During the winter, the precipitation and temperature of southern Europe are distinctly favorable for water power.

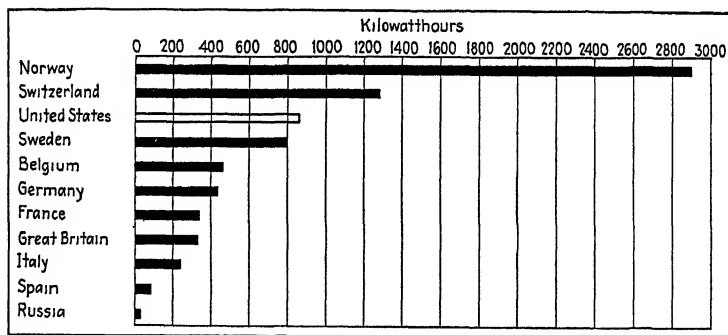


FIG. 74.—Electricity used per capita, 1928.

Nearly all of Russia is a plain with an average elevation of less than 500 feet, upon which the precipitation is scanty. The run-off is relatively still more scanty, since much of the precipitation comes during the warmer season when evaporation is relatively rapid. Hence Russia would have little water power except for the effects of glaciation and of a favorable outcrop of granite. The glaciation of the northern half has resulted in many favorable though small sites where lakes and marshes regulate the flow of water. Fortunately for Russia's water power, the Dnepr (Dnieper) River, which drains a considerable share of the part of Russia having most run-off, is crossed near its mouth by a low ridge of granite, which creates rapids and is the site of the largest hydroelectric development in Europe. When it is completed, it is expected to yield 455,000 horsepower.

Water Power by Countries.—The following table, based on data compiled by the U. S. Geological Survey, shows the regions having

most potential and most developed power A graphic presentation of these data is given in Fig. 176

TABLE III —POTENTIAL WATER POWER AND THE AMOUNT DEVELOPED IN 1926
(Thousands of horsepower)

Areas	Poten- tial	Devel- oped	Areas	Poten- tial	Devel- oped
Sweden	8,000	1,350	Rumania	1,600	30
Norway	9,500	1,900	Bulgaria	1,200	18
Finland	1,800	220	Greece	250	8
Russia	3,000	230	Albama	500	1
Ukraine	425	40	Italy	3,800	2,300
Caucasus	5,000	5	Switzerland	2,500	1,850
Estonia	125	17	Germany	2,000	1,100
Latvia and Lithuania	100	5	France	5,400	2,000
Poland	1,400	90	British Isles	850	250
Czechoslovakia	1,000	155	Spain	4,000	1,000
Yugoslavia	3,000	180	Portugal	300	10
Austria	1,660	325	Iceland	500	
			Total	58,000	13,100

CHAPTER VI

TRANSPORTATION FACILITIES

Europe is rich in transportation facilities. No other continent is served so effectively by ships, in none is so large a share of the population within 10 miles of a railroad, in none are airplane routes more numerous or more used, no other has nearly so many good roads in proportion to area or population, and in none is internal transportation so much facilitated by rivers and canals. Moreover, telegraph and telephone lines are exceptionally well developed

Regional Contrasts.—The distribution of transportation facilities in Europe is, however, by no means uniform. Figures 79, 80, and 81 show in a striking way some contrasts in the abundance of railroads and Fig. 85 of air routes. The intensity of ocean traffic is suggested by the distribution of the greater ports (Figs 1, 189). In respect to each of these the concentration of facilities near the North Sea is striking and the decrease in all directions therefrom rather uniform. This condition closely resembles the decrease in healthfulness as shown by increased death rates and the corresponding decrease in intensity of production and in literacy (Figs. 27, 35, 96).

OCEAN SHIPPING

Influence of Commercial Activity.—Several conditions favor a high degree of development of transportation facilities. Europe is well served by ocean ships partly because its population is so active commercially and buys such a volume of imports and sells such valuable exports. Ships also carry far more passengers to and from Europe than to and from any other continent (Fig 1).

Access to the Sea.—The shape of Europe, particularly the fact that so large a share of the more industrially active part is relatively near the sea, has been significant in the development of ocean traffic. Even eastern Russia, the part most remote from the ocean, is much nearer than a large share of each of the other continents except Australia (Fig 22).

Favorable Climatic Conditions.—The early development of navigation was much facilitated by the comparative calmness of the Mediterranean, Black, and Baltic seas, and the protection afforded by numerous coastal islands. The presence of high tides on the coasts of northern France and

Britain also augmented the use of the ocean when ships were small and could readily ascend the rivers a considerable distance (Fig. 78)

Climatic conditions are, moreover, generally conducive to ocean traffic. The only ports closed by ice are those in Russia and on the Baltic, and the latter, as well as the ports of southern Russia, are used all or nearly all the winter with the help of ice breakers (Fig. 251). The storms of the eastern North Atlantic and North Sea, although far more numerous, are less serious than the more intense tropical cyclones (typhoons) of eastern Asia or the hurricanes of the western Atlantic. Indeed, the presence of numerous storms of moderate severity in the North Sea region has probably aided shipping by familiarizing seamen with rough water, and also by encouraging the construction of ships strong enough to weather all but the worst storms of other seas. The

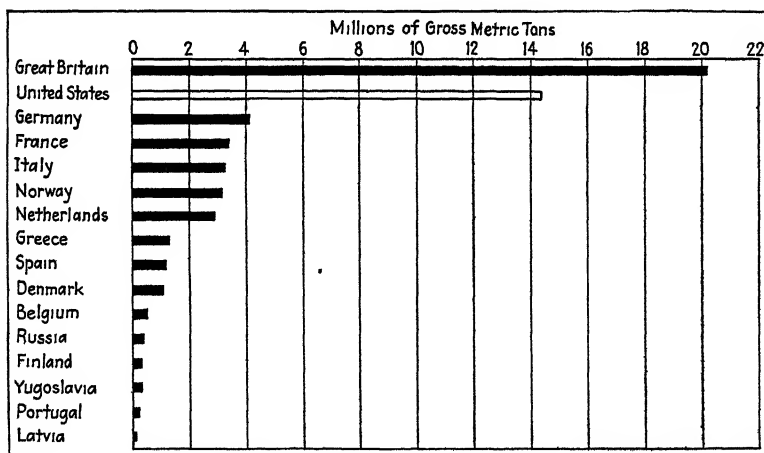


FIG. 75—Merchant marine, 1929

prevalence of wind and its frequent changes in direction because of the numerous cyclonic disturbances (Fig. 30) also aided the development of sail boats, which prepared the way for steamships (Fig. 78).

Inventions.—The later great development of ocean commerce was profoundly affected by the British invention of the steam engine, of steel ships, and of an effective mariners' compass. The Diesel motor ships, invented in Germany, have also been important recently, as now about one-fourth of all tonnage and nearly one-half of that which is new is of motor ships (Figs. 76, 77).

Distribution of Ocean Shipping.—Since most of the ocean tonnage is now made up of large ships with a high daily overhead cost of operation, a few ports receive most of the traffic. Instead of the hundreds of ports of the pre-steamship times, a dozen do most of the business (Figs. 1, 189).

But even a small port which is entered only occasionally by a small ship is of advantage to its hinterland, and its traffic helps to swell the total.

Almost all of the trade between either Britain or Norway and Sweden and the rest of Europe must be carried on by boat, for the air still carries relatively little. The same is true for the almost innumerable islands from Spitsbergen to the Aegean. A large part of the trade between areas connected by land is also by boat. For example, the trade between Russia and Belgium and between Italy and Spain. This is partly because of the physical barriers to land travel, and the indirect land routes caused by the great coastal indentations, but it is also greatly influenced by the customs difficulties in crossing national boundaries. For all these reasons as well as others common to shipping in general, it is often more advantageous to transport by ship than by rail.

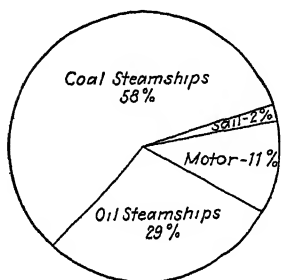


FIG. 76—Percentage of all merchant ship tonnage by type, 1929

Chief Ports.—Among the local trade routes by sea, the North European and Mediterranean routes are especially important. The chief ports of the former are Stockholm, Helsinki, Leningrad, Riga, Danzig, Stettin, Copenhagen (Copenhagen), Oslo, Hamburg, Bremen, Amsterdam, Rotterdam, Antwerpen (Anvers), Ostend, Calais, le Havre, Southampton, Liverpool (Fig. 166), Belfast, Glasgow, Hull, and London. London receives about one-third of the British imports, by value, and Liverpool one-fourth, but Liverpool exports more than London.

Ships from the northern harbors also follow the other route, visiting many Mediterranean cities including Valencia, Barcelona, Marseille, Genova (Genoa), Napoli (Naples), Trieste, Piraeus [Athens], Thessalonike (Salonika), Istanbul (Constantinople), Odessa, Nikolaev, and Batumi. In addition many ships ply only between Mediterranean ports. Ships from distant harbors also visit these Mediterranean ports. For example, some boats which ply between southeastern Asia and Europe have their European terminus at Marseille, and some that go to South America start from Genova.

RIVER TRAFFIC

Influences Affecting River Traffic.—Much traffic is carried upon the numerous rivers. The Rhine, Danube, Elbe, Volga, Seine, and Dniepr (Dnieper) are especially thronged with boats, though these are fewer now than formerly. Indeed before the coming of railroads, even small rivers carried some commerce.

Climatic Conditions.—The use of the rivers as highways has been facilitated by the climate, the topography, and the direction of flow.

Aside from eastern Europe the rivers are rarely closed by ice even in western Germany, and almost never farther south and west. The cool rainy summers of western Europe also lessen the common tendency toward low water in summer.

Topography —Relief conditions are favorable for the use of the rivers of much of northern and eastern Europe. Upon the plain their valleys are not sunk very deeply below the general level, their currents are not swift, and few are interrupted by rapids, at least in their lower courses. Several of the rivers have been made navigable almost to their sources, and many are connected with one another by barge canals both in their upper and lower courses. It is possible, for example, to cross in a barge either France or Russia from north to south going up a northward flowing river, then following a canal, and thence down a southward flowing river. Germany, Netherlands, and Belgium can likewise be crossed on canals that extend west and east across the natural drainage (Figs. 181, 203).

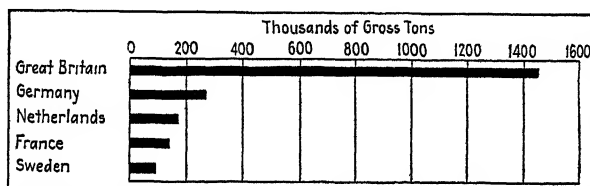


FIG 77 —Merchant ships under construction June 30, 1929. One-fourth of the German tonnage was of motor ships, one-half of the British, two-thirds of the Dutch and French, and three-fourths of the Swedish

Direction of Flow —The courses of the rivers are mostly favorable to navigation in that they lead rather directly from the interior of the continent toward the ocean. The chief exception is the Volga which follows a decidedly indirect course to the enclosed Caspian. The courses of the Rhine and Elbe and Thames rivers are especially favorable as they lead directly toward the southern part of the North Sea. Several other rivers, including the Seine, Oder, Vistula, and western Dvina flow in the same general direction.

The Rhine is the most used river chiefly because of its exceptionally favorable location and because ocean-going ships can ascend its lower course to the great industrial region of the Ruhr (Fig. 204).

The Danube River.—This river, known as the Donau in Germany and Austria, Duna in Hungary, Dunav in Serbia, and Dunarea in Rumania, has long been one of the great thoroughfares across Europe. It twice entirely crosses the central chains of mountains, as is clearly shown in the physiographic diagram in the pocket, once at Wien and once at the Iron Gate. Although the Danube is not nearly so important a highway as is the Rhine, Elbe, or Volga, it flows through or along a number of countries. Whereas the Volga is discussed in the chapter on

Russia, the Rhine and Elbe in the chapter on Germany, and various other rivers in the chapters dealing with the countries through which they chiefly flow, the discussion of the Danube can not appropriately be confined to any particular country. It merits discussion, however, and can here be used as an illustration of river transportation ¹

The Danube is the great drainage artery of central Europe, and the only large river which flows eastward a considerable distance. In length and drainage area it is exceeded only by the Volga, which it surpasses in volume. The divides separating the Danube from the North Sea-Baltic drainage are so low that three canals thence have been constructed, thus affording water routes entirely across the continent. These canals attain to maximum heights of only 870 feet on the Oder-Danube route, 1,214 feet toward the Elbe, 1,330 feet toward the Main, and 1,870 feet toward the Rhine.

In spite of these advantages, traffic on the Danube is small, only about one-fifth of the 1912 traffic on the Rhine, and smaller than that on the Elbe or the Berlin canal system. It was, however, somewhat larger, than that on the Oder or the Weser-Ems. The reasons for this slight utilization are to be found chiefly in the physical characteristics discussed below, but also partly in political and economic restrictions.

The upper Danube is entirely within Bavaria. At certain seasons barges of 100 tons ascend to Ulm, but little else than lumber gets that far, and the total traffic is small. Grain, which constitutes the chief upriver cargo, is usually unloaded at Passau. The upper Danube is often a raging torrent in spring and early summer, when heavy rains in the Black Forest and melting snows in the Alps contribute their run-off, but in other months it usually is a small stream. The canal which joins the upper Danube and the Main is little used at present but a new and larger one is now under construction.

The middle Danube includes the stretch between the narrows at Passau and the Iron Gate. Additional obstructions occur near Bratislava (Pressburg) and near Budapest where spurs from the Carpathians approach the Alpine ridges and Bakony Forest. These spurs separate the middle Danube section into three basins: the Wien (Vienna) Plain, the Little Alfold, and the featureless Hungarian Plain. The Tisza (Theiss) parallels the Danube for 150 miles with a fall of only 15 feet, and, in time of flood on the Danube, this tributary also floods large areas despite much dyking. The principal cities on the middle Danube are at points where the river narrows and the land routes focus. Wien is perhaps the best example of such a site.

The middle Danube section is the most important one commercially, having in 1912 about seven-eighths of the total traffic of about 8,800,000 metric tons.

¹The following discussion of its navigation problems was contributed by Professor

Lower Danube.—The Iron Gate marks the division between the middle and lower sections and is the site of the most serious obstruction of the river from Austria to its mouth. In spite of a channel blasted through the narrows in 1896, the rapidity of the current and the narrowness and crookedness of the course make the passage dangerous and expensive. Special tugs have to drag the barges up through the rapids, and the narrowness of the channel closes it to larger vessels. In addition to the difficulties of swift current in these narrows and marked fluctuation in volume, particularly in the upper river, there are other obstacles to navigation. Although the river freezes across only locally, floating ice greatly interferes with navigation. At Galatz, for example, the ice forms blockades for three months on an average. As a consequence of the ice and the low water, the traffic in winter is only half as much as in summer, although winter is the time of the heaviest grain movement so that then the need of the waterway is greatest.

A fundamental disadvantage of the Danube is the direction of flow, from an industrial region to one of raw materials. The current leads Bulgaria and Rumania to use the Danube chiefly as a route to the Black Sea, whence steamships go via the Mediterranean to northwest Europe. An additional disadvantage is that the lower Danube swings far north, to enter an almost inland sea into which much Russian grain is carried, with which the Hungarian grain must compete.

The Danube Valley provides a graded course for railways, which are serious rivals of the river as highways. Furthermore important railways from the Danube to the Aegean and Bosphorus avoid the Iron Gate and the long roundabout route via the lower Danube by leaving the Danube at Beograd (Belgrade). One reaches Thessalonike via the Morava-Vardar depression (Fig. 312), the other reaches Istanbul via the Morava and Maritza valleys.

The political obstacles to the use of the Danube may be temporary, as internationalization may eventually eliminate national favoritism, but certain fundamental difficulties are permanent and serious. The tonnage will perhaps increase above the present but the river is not now, and probably never will be, used for much through traffic. The railroads offer too many advantages for such transport.

CANALS

✓ *Barge canals* are especially numerous in northern Europe and were extensively used before railways became locally available. In Germany their use was fostered by legislation preventing railways from carrying certain commodities which could be shipped by canal. The German militarists believed that when the anticipated great war came the railways might be used exclusively for military purposes while the canals could carry the other traffic. During the World War, however, they found that

canals were too slow and too costly in man power, and hence they were practically abandoned. Now barge canals are of relatively little importance anywhere in Europe, except for the local handling of sand and gravel for construction purposes. The chief exception is the considerable traffic (some 9,000,000 tons in 1928) carried on the canals of the Berlin district. But Berlin is a huge inland city with an exceptionally favorable situation for canal traffic. Most of the numerous German canals lead thither, including canals from the nearby Elbe and Oder rivers, at the mouths of which lie the ports of Hamburg and Stettin (Fig. 203).

Ship canals are of course quite another matter. Of the five chief canals, the canalization of the Schelde, which has opened Antwerpen to large ships, has had the most striking results. From a port of slight importance, Antwerpen has become Europe's busiest. The canal from

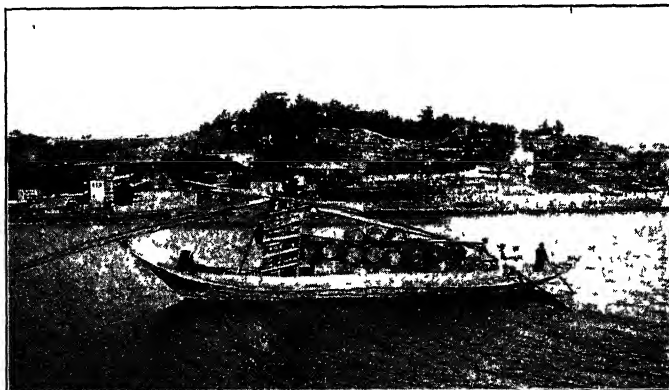


FIG. 78.—Shipping wine down the Douro to Oporto, Portugal.

the North Sea to Amsterdam has been far less significant, presumably because Rotterdam is more favorably situated than Amsterdam. The Manchester Canal has likewise failed to accomplish fully its intended purpose, as Liverpool continues to be the main terminus. The Corinth ship canal (Fig. 315) is used by numerous small ships but by few large ones because of its narrowness, and it has not been a financial success. The Kiel Canal was extremely valuable to Germany in the World War. It was constructed chiefly for military uses but recently has become commercially rather important.

RAILWAYS

Distribution.—Europe has about 230,000 miles of railways, or about 10,000 less than the United States, but Europe is much more effectively served by boats than is the United States, and the railways are used much more nearly to their capacity. As appears conspicuously in Fig. 79, a large region in west central Europe is practically without

areas which are farther than 10 miles from a railway. In England and the continental section near the North Sea there are in fact only tiny scattered areas that are more than 5 miles from a railroad. Not only are railroads very numerous in much of Europe but trains are frequent and dependable and wrecks few. Crossing accidents are likewise few or lacking in much of western Europe, where there are few grade crossings.

Although the first railroads were constructed in Europe, and a large share of the continent was well supplied decades ago, construction is still taking place in the less adequately served areas, and to replace the barge canals and rivers which are being abandoned. Whereas the United States has something like 15,000 fewer miles of line than in 1914, Europe has increased her mileage notably, more than 4,000 miles in Poland alone.

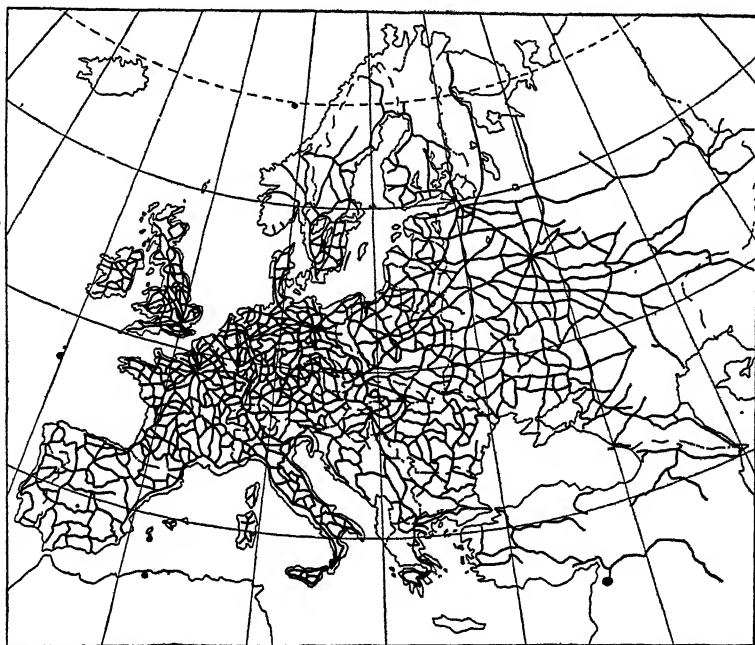


FIG 79.—Railroads. Some of the lesser lines are not shown, in the more crowded areas.

Conditions Affecting Railways.—The construction of railroads has been facilitated in Europe by the large share of the continent that is a lowland, by the large and commercially active population to be served, and by the availability of relatively cheap steel and coal (Figs. 80, 81).

Shape.—The irregular shape of the continent has interfered with railroad construction at the same time that it facilitated ocean navigation. Likewise, numerous marshy tracts, many rivers, and several mountain ranges have been handicaps.

Political Subdivision.—The numerous international boundaries have also been obstacles to railway extension, as fear of invasion encouraged Russia and Spain to adopt peculiar rail gages. The delays due to custom officers are also considerable, even where change of cars is not necessary.

International boundaries have also interfered with the development of long traffic sections, except in Russia. In general the capital is the focus of the railways in each country, and through traffic is relatively small. Most European railways are somewhat comparable to the suburban railway development around the larger American cities. There are an increasing number of "international routes," however, over which sleeping cars are hauled. One of the chief of these is from Paris to Milano and Venezia, Italy, through the Simplon Tunnel; another is from Berlin to Istanbul, via Wien (Vienna), the Danube Valley and Sofia, a third extends along the north European Plain from Paris to Bruxelles, Berlin, Warszawa (Warsaw) to Moskva (Moscow). Other routes upon which

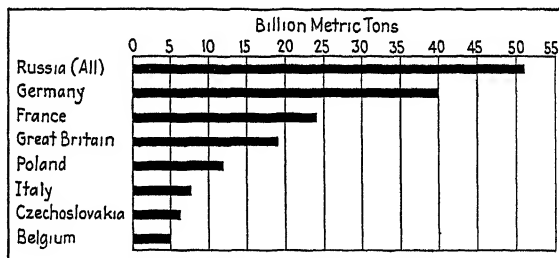


FIG 80 —Railroad freight, 1927

sleeping cars are carried are the Paris to Madrid and Paris to Monaco. There is heavy rail traffic also along several of the river valleys, especially the Rhone, Seine, Rhine, Po, and Danube.

Short Haul.—The fact that most of the railroad traffic moves in short hauls between a port and the interior of a small country has made it feasible to use freight cars that are much smaller than those in this country. Furthermore, as few passengers care to travel by night, or find it necessary to do so, the passenger trains nearly all run by daylight, and there are few sleeping cars except on the longer international lines already mentioned.

Classes of Traffic.—Another conspicuous difference between European and American railways is the presence in Europe of classes of traffic. Large numbers of people financially unable to afford luxurious travel are carried in plain third-class coaches at a fraction of the fare charged for the first-class coaches. Likewise, in several countries the freight to be exported is charged especially low rates.

Mountain Crossings.—Although numerous relatively lofty mountain ranges are widely distributed in Europe, they have interfered with railway

construction and operation much less than have the mountain ranges of the other continents. This is because of the several exceptional conditions discussed in Chap. III which need only be summarized here.

1 The northwestern highland is broken by several gaps and only in Scandinavia does it impose for a long distance a serious obstacle to the penetration inland of railroad lines. Even in Scandinavia it is crossed at four places in the south, where the range is less lofty, and also at the

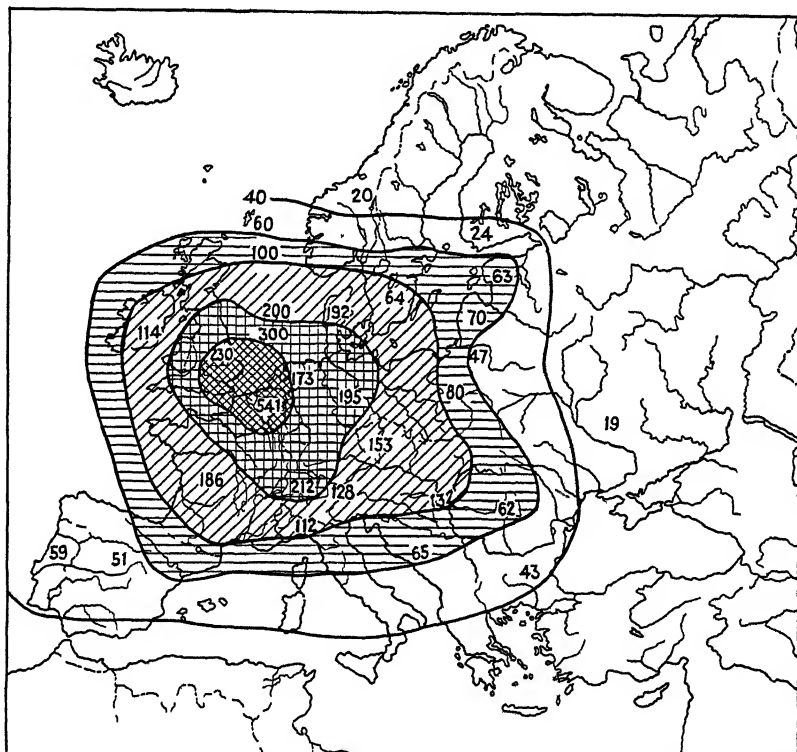


FIG 81—Railroad mileage Isopleth map showing the concentration of mileage. Figures are the approximate number of miles of railroad per 1,000 square miles of area, 1927, by countries

north where some Swedish iron ore is sent to the Norwegian port of Narvik. These crossings have been greatly facilitated by the deep glacial erosion which converted the seaward ends of the valleys into fjords.

2. The series of lofty mountains which extend from western Iberia eastward to the Caspian Sea are interrupted by several gaps, and the ranges themselves are crossed by several passes. The passes of the Alps and especially the approaches to the passes are exceptionally low, partly as a result of profound glacial erosion of the valleys during the Ice Age. Furthermore, it has been feasible, because of the large traffic and other

favorable conditions, to construct tunnels under several of the ranges, with the result that the highest elevations reached by the railroads are remarkably low considering the loftiness of the higher peaks. For example, by way of the twin Simplon tunnels, the maximum railway elevation is only 2,313 feet. Some facts concerning tunnels of importance are as follows:

Name	Between	Length, miles	Maximum elevation, ft	Completed
Simplon	Geneve, Milano	12 3	2,313	1906, 1921
St Gotthard	Zurich, Milano	9 3	3,785	1882
Mount Cenis	Lyon, Torino	7 6	4,380	1871
Maritime Alps	Nice, Torino	6		1928
Pyrenees	Pau, Zaragoza	4	3,940	1928

The location of most of these passes is shown on Fig 214. The Brenner Pass between the head of the Adriatic and Austria is low enough (4,470 feet) so that no tunnel has yet been considered necessary along this scenic route.

3. Because of the location of the Pyrenees, railways along the coast at either end have sufficed until 1928. Likewise, the demand for a railroad across the Caucasus has been insufficient to lead to its construction. This is partly because this range is readily rounded on the east by a railroad while at the west the coast of the Black Sea trends so as to encourage shipping by sea from the northern side of the range to the southern.

Most of the world's scenic railways are in Europe, especially in central Europe. In the Alps, which are visited by many thousands of tourists annually, there are several marvelous scenic railways leading almost or entirely to the summits of famous peaks, from which superb views may be obtained in fair weather.

ROADS

Road construction in Mediterranean Europe reached a relatively high stage under the Roman Empire, and some of the old roads are still in use. Roman roads also extended across what is now France, and since Roman days much of France has had relatively good stone roads. The early roads of much of Europe were, however, often rendered almost impassable by mud, but, after the invention by the Scotchman, Mac-Adam, of the method of road construction named after him, firm roads soon became general in the more advanced, densely settled regions. In Russia and Poland, however, a general lack of stone for road metal has

greatly retarded the construction of firm roads. But in winter that part of Europe is usually mantled with snow for three months or longer and



FIG. 82 —Gathering wood for charcoal making in one of the slightly wooded mountains of Spain. Very few wagons are seen in most of Iberia.

then the roads are often smooth and, where much traveled, also hard (Fig. 82).

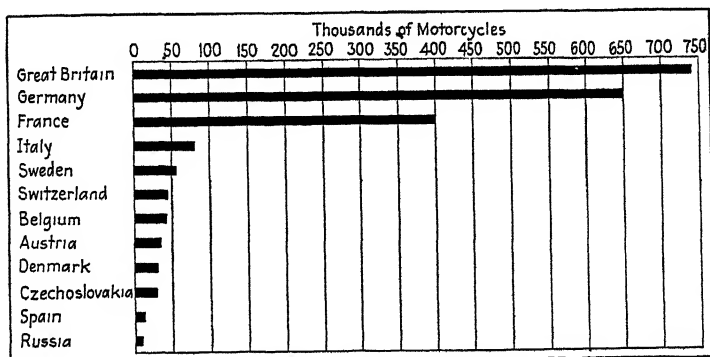


FIG. 83 —Motorcycles, 1930

In recent years numerous automobile roads have been constructed in the countries having most automobiles (Fig. 84) and to accommodate tourists to Italy.

The bicycle is vastly more used in Europe than in the United States and the same is true of motorcycles (Fig. 83) and buses. The use of automobiles is also extending very rapidly and in some countries their frequency per mile, though not per capita, is fast approaching that in the denser settled parts of the United States (Fig. 84). Three geographic conditions have favored automobiles of small gasoline consumption: (1) the fact that most automobiles are used in places where the roads are almost level, (2) the short distances traveled, which reflects the small size of the political units and the appreciable difficulty of going from one country to another; (3) the relatively high price of gasoline, as com-

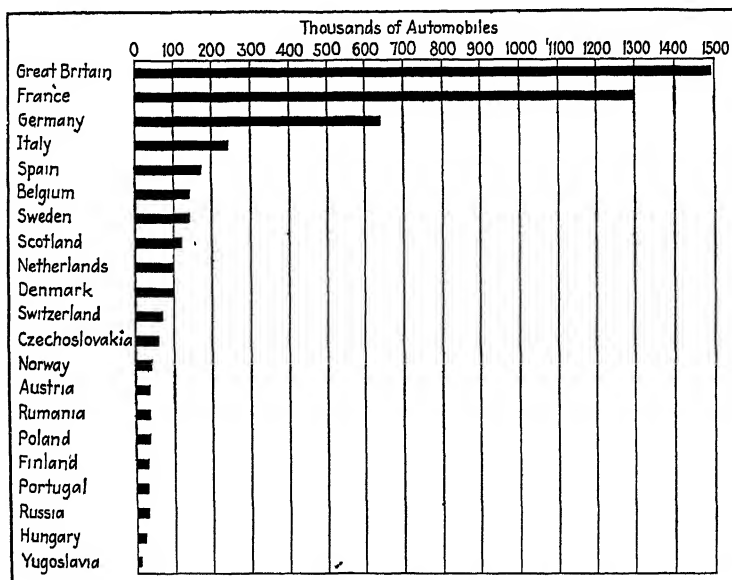


FIG 84 —Automobiles, 1930

pared with wages, which is partly because of the inadequate petroleum resources of Europe. This last condition has encouraged the development of steam trucks in England and of substitute motor fuels, especially in Germany.

AIR TRAVEL

In the use of the airship and airplane Europe excels and it is now possible to travel to most of the main cities by plane, often at a money cost comparable to that on the railway, even second class, if meals and sleeper are included. The main routes are shown on Fig. 85. A study of the miles flown in proportion to the area of the countries reveals the fact that the region bordering the southern North Sea again excels notably. Although Germany is a close second to the United States, which

is about fifteen times as large, Netherlands and Belgium surpass Germany, in proportion to area, in miles flown and traffic carried. The British Isles use airplanes less extensively, however, except between London and the

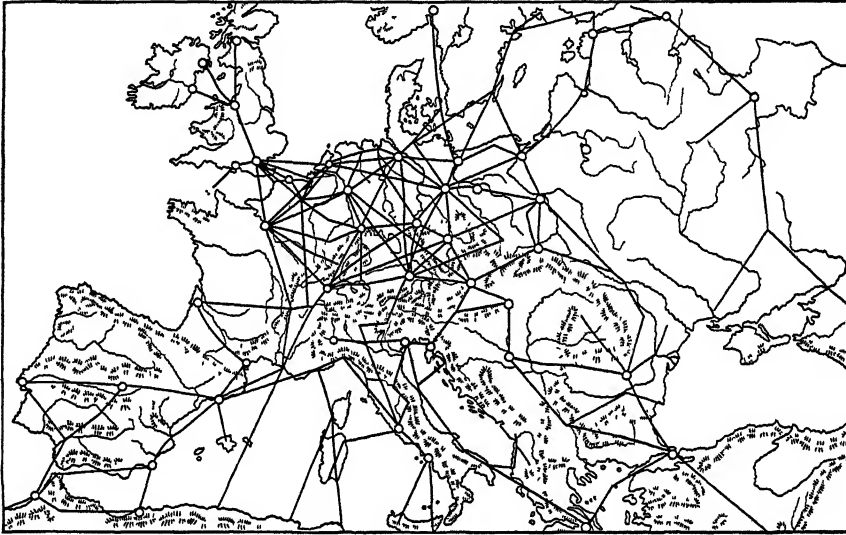


FIG 85 — Chief airplane routes, 1930

Continent, where they are used perhaps more than anywhere else in the world. The small size of Britain and the short time required to go between the larger cities by the numerous fast trains or automobiles have tended to discourage the local use of airplanes.

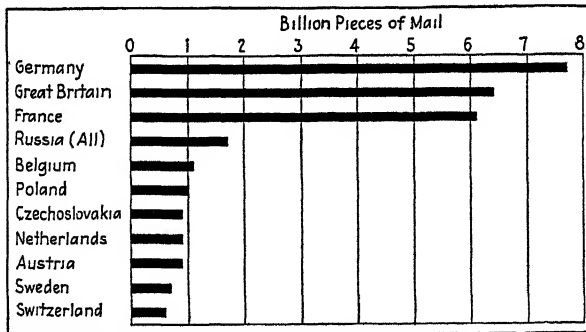


FIG 86 — Pieces of mail, 1927

The comparative efficiency in the various countries of the several agencies of transportation combined is reflected by the mail service rendered (Fig. 86).

CHAPTER VII

DISTRIBUTION OF POPULATION AND CITIES

GENERAL DISTRIBUTION

The general distribution of population is effectively shown in Fig 87 which reveals sharp contrasts. The black areas have more than 250 people per average square mile and the white have less than 5. The white areas are of three types: (1) the subpolar regions, almost without people, (2) the mountains including only the highest at the south but even the low ones in Scotland, and (3) the drier southeastern part of

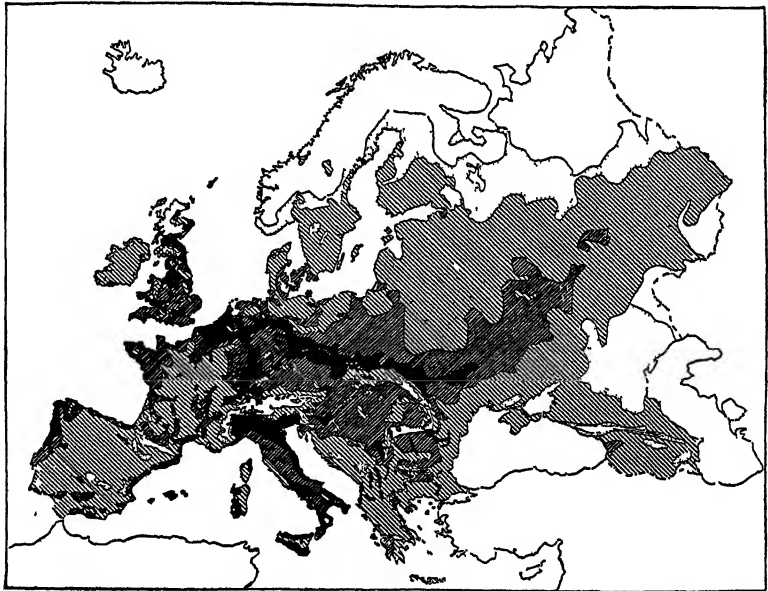


FIG 87 —Distribution of population. The black areas have more than 250 per square mile and a part of them at the west have more than 500 per square mile. The white areas have less than 5 per square mile. (By Mark Jefferson, in *Bulletin American Geographical Society*, after Dr. Weise, in *Petermann's Mitteilungen*.)

Russia. The largest white area is in northern Russia and Scandinavia, where it extends along the mountains almost to southernmost Norway. Iceland is also white because most of it is without population. Half of Scotland is also white, for the northern interior section is mountainous. Among the other mountains, the largest area which is sparsely populated lies in the Alps. This is followed in size by areas in the higher Caucasus, the Tatra section of the Carpathians, and the Pyrenees.

Areas with from 5 to 25 persons per square mile (stippled) border those with fewer than 5 per square mile at the north and northeast and also occur in the drier and the more rugged parts of Spain. Most of the rest of Russia, most of Iberia, Ireland, and the Balkan Peninsula have from 25 to 125 persons per square mile. The areas with more than 250 per square mile (black on the map) largely occur in the central part of Europe, especially in the coal-bearing zone. A narrow black belt extends continuously from Ukraine at the east to northwestern France at the west. It is broadest in Belgium and southern Netherlands and again in England. From this belt an extension follows the Rhine to Switzerland. Several other lesser areas have a population of more than 250 per square mile. These occur especially in Italy, where they include all of the northern lowland, and a strip along the east coast as far south as the latitude of Roma (Rome), a considerable area near Napoli (Naples), half of Sicilia (Sicily) and several smaller areas. Black tracts are also scattered along the coast of Iberia and are present in fertile lowlands in France, Austria, Hungary, and especially in Great Britain.

Areas with Dense Population.—The areas having 250 or more people per square mile include a few that have more than 500 per square mile. The largest of these extends with some slight gaps from the eastern margin of northern France across Belgium to beyond the Ruhr Valley of western Germany, and from southern Netherlands up the Rhine Valley to Mannheim. The second largest is just northwest of Bohemia in Saxony. Britain has several small areas with more than 500 per square mile, the largest having Liverpool at its western margin. The next largest is the London basin, the third is the Scottish lowland, and the fourth is south Wales. Italy has several in the Po Valley, the largest being about Milano. Another large one is located on the Ligurian Coast and extends up the Arno Valley to Firenze (Florence). Still others lie elsewhere along the coast, especially near Napoli. France has four, two in the middle Rhone Valley and the others in the Paris basin and the industrial area surrounding St. Etienne. All of these areas with more than 500 persons per square mile are highly industrial; some are also very important commercially and as capitals of their countries.

Areas of Lesser Density.—On both sides of the great belt of dense population (250 or more per square mile) which extends from southern England and northwestern France almost due east to Ukraine, there are wide areas with more than 125 people per square mile. The chief exception is along the Carpathians, where the dense population prevails as far as the lower slopes, above which the population is sparse. Another region where the decline in density is conspicuously rapid is in south-eastern Poland and adjacent Russia towards the Pinsk marshes. A third is in northwestern Germany toward the marshes and heaths of Oldenburg and western Hannover.

Even within the regions of relatively dense population many marshy and sandy tracts are sparsely settled. One of the largest of these, the malarial Campagna, extends from Roma northward for about a hundred miles, but it is now being drained and gradually reoccupied. Mention has been made of the reclamation of the sandy and formerly also marshy "landes" of southwestern France, and of extensive marshy lands in the Netherlands. Numerous smaller tracts of marsh have been reclaimed in England, especially about the head of "The Wash," in northern Belgium, and in Germany. Few of these, however, have attained a comparatively dense population, the chief exception being the southwestern section of the Netherlands known as the province of Holland, which contains the chief cities, and which is at or below the level of the sea at high tide.

Chief Influences Affecting Density.—The general features of the distribution of population in Europe are related conspicuously to contrasts



FIG. 88 —Population of Western Europe. Each dot represents 500,000 people

in climate, mineral wealth, topography and soil (Fig. 88). The areas that are too cold for general agriculture, either because of high latitude or high altitude, are sparsely settled. Those that are too wet or too dry are much smaller in extent but are almost as scantily peopled. The merely rugged tracts have many more people, but only a fraction of the number found in the fairly level areas of fertile soil. The largest area of dense population occurs, however, chiefly in or near the great coal fields, "the mineralized belt" of Chap. V. In that belt the population is as dense as anywhere in the world, with the exception of a few especially fertile tracts in China, India, Java, and in urban centers.

In other words, the distribution of population in Europe varies chiefly with agricultural possibilities, secondarily with industrial possibilities, and still less, except for the cities, with commercial possibilities. Of relatively little apparent effect on population density are the opportunities for the extraction of minerals, fishing, or recreation. Difference

in the standard of living, has, however, influenced population density significantly, and it reveals distinct regional contrasts. Toward the east and south especially, but also in Iberia, the population is much denser than it would be if the standards of living were as high as they are in the North Sea countries. And within the latter area also the standard of living varies from section to section with soil, relief, and climate and helps explain some contrasts in population density.

DISTRIBUTION OF CITIES

Urban Centers.—Europe contains many hundreds of urban centers of more than a thousand people each, about 70 of one-fourth million to nearly a million, and a dozen of more than a million population each. Moreover, until very recently it has included the largest urban centers of the world, except New York, and a larger number of huge cities than any other continent. Although a smaller percentage of the population is urban in Europe than in Australia or some South American countries and American states, Europe is, nevertheless, most truly the land of cities, for the Europeans in large cities are more numerous than all the rest of the people in the large cities all over the world.

The unit used in this discussion is the urban center rather than the political city because the commercial and social unit rather than the political is the more significant. The term "urban center" as here used includes not only the political units commonly known as "cities" but tributary suburbs and subsidiary cities and sometimes companion cities. In some great urban centers, the political city which gives the center its name contains less than half of the total population. This is true of London, Sydney, Boston, and Tokio. In other instances two or more large cities are so closely associated as to form in fact a single great urban center. Examples are Minneapolis and St. Paul, Liverpool and Manchester, and Ruhr (Duisburg, Essen, Dortmund), Fig. 91.

Students of geography can much more profitably learn the names, locations, and approximate population of the chief urban centers rather than those of the chief cities as political units. Even some advanced students of geography may be surprised at the relative rank of some cities when their suburbs are added.

The data as to the populations of the urban centers are not easy to compile, because most census returns give the population only of political units. Consequently, it is necessary to discover and add together the totals of all the political units which are a part of the urban center.

Figure 89 shows the distribution of the urban centers of the world having a population of a million or more according to recent information. It reveals strikingly the predominance of such cities in Europe. They are so numerous there that on the scale here used the circles representing them overlap. Hence Fig. 90, which deals with a part of Europe on a

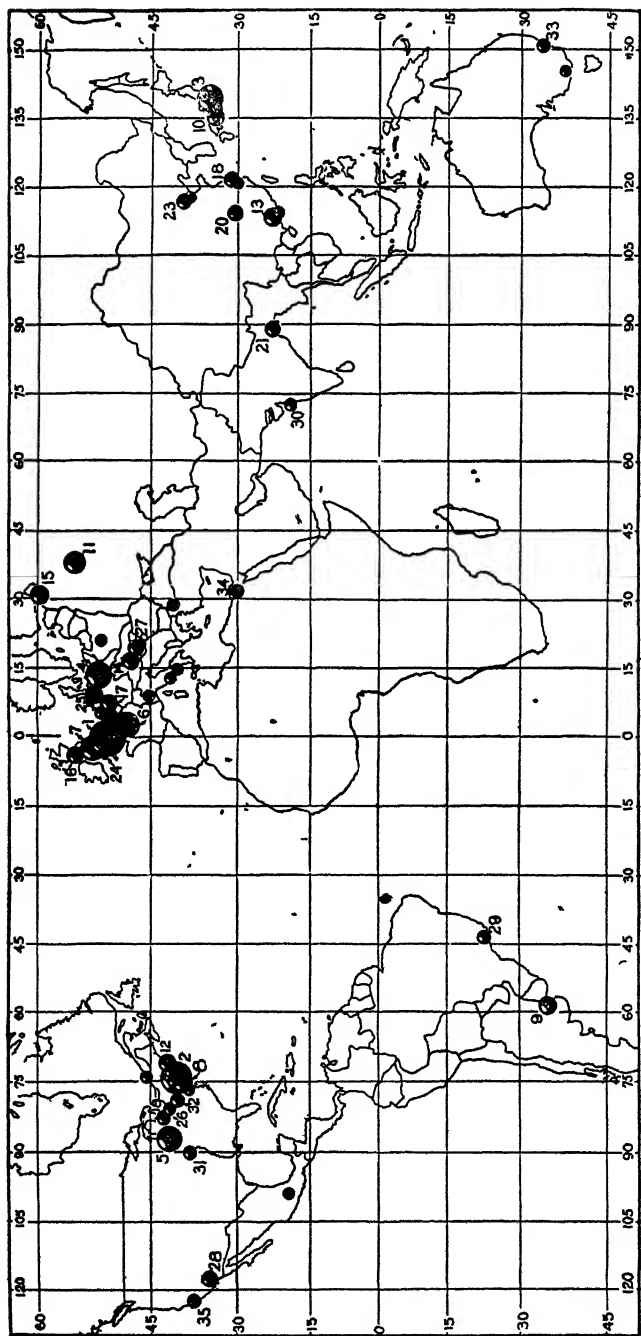


FIG 89 —Urban centers (cities and their suburbs or associated cities) having more than a million people, numbered in order of size. Also 16 centers of almost a million population, not numbered. (Drawn by Guy-Harold Smith. From *Visser, Journal of Geography*, September, 1929.)

larger scale, is needed. The numbers near the circles give the rank of the urban center among those of the world as a whole. London was given first place, but the 1930 census shows that Greater New York is now the larger, if Newark be included. This may properly be done, despite the fact that Newark is politically, and in some other respects, an independent city, because it is within 12 miles of the center of New York. For London the radius commonly used is 25 miles.

The following list of the 83 European urban centers having more than one quarter million people should facilitate acquaintance with the more important. The location of most of them is given on the physiographic diagram in the pocket, the first letter of the name and a small circle alone being used. The location of the larger centers is shown, without names, in Fig 90. Figure 91 reveals their sizes in another way.

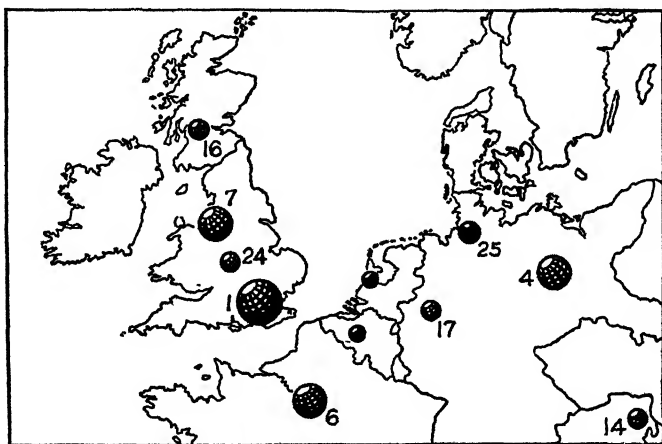


Fig 90 —Urban centers of a part of Europe, numbered for the world, except two centers of nearly a million that are unnumbered (Drawn by Guy-Harold Smith)

Types of Cities.—The 83 cities listed belong to one or more of the following categories: Twenty are the capitals of their countries, and in every instance are the largest cities thereof. The letter *c* follows the names of each of these in the following list. Some 40 are seaports and 3 others are on the Rhine some distance above the delta where it is navigated by seagoing ships. Those to which ocean-going ships can approach are followed by *s* on the list. Some 30 are on or adjacent to coal fields. These are followed by *cl* on the list. Practically all, whether on the coast or in the interior, are on rivers, although in some instances the streams are small. Most of the cities are near sea level and practically all within about 500 feet of sea level. The chief exceptions are Madrid (elevation 2,100 feet), Munchen (Munich 1,700 feet), Chemnitz (1,000 feet), Nurnberg (960 feet), and Stuttgart (800 feet).

CHIEF EUROPEAN URBAN CENTERS ARRANGED BY COUNTRIES, BUT NUMBERED FOR EUROPE AS A WHOLE

Name	Popu- lation	Name	Popu- lation
Britain and Ireland			
1 London (c, s)	8,000,000	39 Kiev	500,000
4 Liverpool-Manchester (s, cl)	3,500,000	44 Baku (s)	450,000
8 Glasgow (s, cl)	1,500,000	49 Odessa (s)	410,000
10 Birmingham (cl)	1,300,000	50 Kharkov (cl)	410,000
22 Leeds-Bradford (cl)	760,000	64 Rostov (s)	310,000
35 Sheffield (cl)	530,000	72 Tiflis	280,000
40 Newcastle (s, cl)	470,000	84 Dnepropetrovsk (cl)	250,000
45 Edinburgh (s, c)	430,000		
46 Belfast (s, cl)	430,000	Italy	
48 Dublin (c, s)	420,000	14 Milano (Milan)	900,000
54 Bristol (s, cl)	390,000	15 Roma (Rome) (c,)	900,000
63 Cardiff-Newport (s, cl)	330,000	16 (Napoli) Naples (s)	850,000
67 Hull (s)	290,000	37 (Torino) Turin	520,000
71 Stoke-on-Trent (cl)	280,000	51 Palermo	400,000
73 Nottingham (cl)	270,000	62 (Genova) Genoa (s)	330,000
Total	15	77 Catania (s)	260,000
		79 (Firenze) Florence	250,000
Germany			
2 Berlin (c)	4,500,000	Belgium-Holland	
19 Ruhr (Duisburg, Essen, Dort- mund) (s, cl)	1,500,000	17 Amsterdam (c, s)	830,000
11 Hamburg (s)	1,300,000	18 Bruxelles (Brussels) (c, cl)	830,000
25 Köln (Cologne) (cl)	700,000	29 Rotterdam (s)	650,000
26 Leipzig (cl)	680,000	42 Anvers (Antwerp) (s)	450,000
27 München (Munich)	680,000	47 s'Gravenhage (Hague) (c, s)	430,000
32 Dresden	620,000	83 Liege (cl)	250,000
33 Breslau	560,000		
34 Frankfurt-Offenbach (cl)	550,000	Spain and Portugal	
38 Hannover (cl)	510,000	19 *Madrid (c)	820,000
41 Nurnburg	470,000	21 Barcelona (s)	770,000
52 Danzig (s)	400,000	36 Lisboa (Lisbon) (c, s)	530,000
54 Bochum-Gelsenkirchen (s, cl)	370,000	76 Valencia (s)	270,000
57 Barmen-Elberfeld (s, cl)	350,000		
58 Mannheim-Ludwigshafen	350,000	Scandinavia	
60 Stuttgart	340,000	23 Kobenhavn (Copenhagen) (c, s)	730,000
61 Chemnitz (cl)	340,000	24 Stockholm (c, s)	700,000
65 Bremen (s)	300,000	74 Oslo (c, s)	270,000
68 Magdeburg	290,000	80 Goteborg (s)	250,000
69 Königsberg (s)	280,000		
78 Stettin (s)	250,000	South Central Europe	
Total	21	6 Wien (Vienna) (c, cl)	1,900,000
		12 Budapest (c)	1,200,000
France		20 Istanbul (Constantinople) (s)	810,000
3 Paris (c, s)	4,000,000	28 Praha (Prague) (c, cl)	680,000
30 Marseille (s)	650,000	55 Athenai (Athens) (c, s)	390,000
31 Lyon (cl)	630,000	59 Thessalonike (Salonika) (s)	350,000
53 Lille-Roubaix-Tourcoing (cl)	400,000	66 Bucaresti (Bucharest) (c)	300,000
75 Bordeaux (s)	260,000	81 Beograd (Belgrade) (c)	250,000
Russia		Poland-Latvia	
5 Moscow (Moskva) (c, cl)	2,300,000	13 Warszawa (Warsaw) (c)	940,000
7 Leningrad (s)	1,600,000	42 Lodz	450,000
		52 Danzig (s)	400,000
		70 Riga (s)	280,000
		Grand Total	83

CHANGES IN POPULATION DENSITY

Historical Changes.—At the dawn of history most of the small population of Europe was found in the Mediterranean region. Anthropologists have decided that the density was very low in the other climatic regions and not over 10 per square mile in southern Europe on the average. The marine climatic province had a few people along the sea-coast, and in the occasional natural clearings in the generally dense woods. There were more people above the forest zone in the Alps, and some nomads were present in the grassy plains of southern Russia. But while most of the continent was almost empty, a rather dense population was found on the little coastal plains of southern Europe. After steel axes became sufficiently common, about the year A.D. 1000, the northern forest was gradually cleared away, and before the industrial revolution commenced the marine province contained about as many people as the

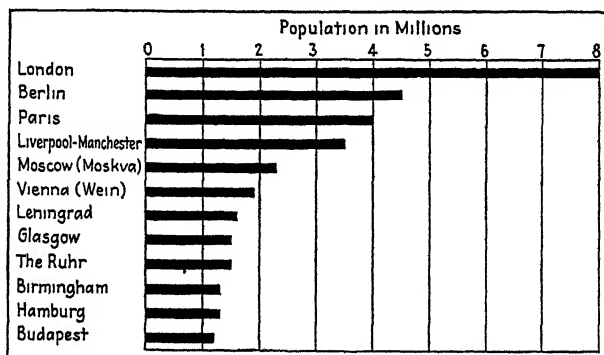


FIG 91—Chief urban centers, the cities, their suburbs, and closely associated cities

Mediterranean, but the continental province remained sparsely settled.

With the invention of steel plows capable of breaking the firm sod and the development of a market for exports, the population of the continental province began to increase rapidly, until now it contains somewhat more than one quarter of the total. But since it includes more than half of the area, it is still the least densely peopled large climatic province except the subarctic. The population of the marine climatic region grew rapidly following the introduction of the use of window glass, coal, and machinery, and it now contains about one-half of the total despite the large population of the better parts of southern Europe (Fig. 87).

Experts consider that most of Europe is rather fully populated now. Throughout most of the historical past the same has been true, for the population in any area at any given time has been practically as large as it could then support. Only when some new resources were developed has there, for a time, been room for large increments in the population.

The great new areas made available for settlement by the introduction of the axe, and the steel plow, improved transportation facilities, the increased output following improvements in agricultural methods, fertilization, and the development of new varieties of plants and animals have each been followed by notable increases in total population. The opening of mines, the harnessing of water power, and the increased catch of fish have had the same effect. The drawing upon the resources of other parts of the world to a notable degree, as was done after the invention of the steamship and locomotive, permitted large increases of population. The present tendency toward "rationalization" or "Americanization" of European industries could doubtless permit a further notable increase in population, but instead the increased efficiency of the workers may lead to a desirable rise in the standard of living.

Possible Future Changes.—If the present large expenditures for preparation for possible wars were greatly reduced, and if tariff warfare were abolished, Europe could support a considerably larger population

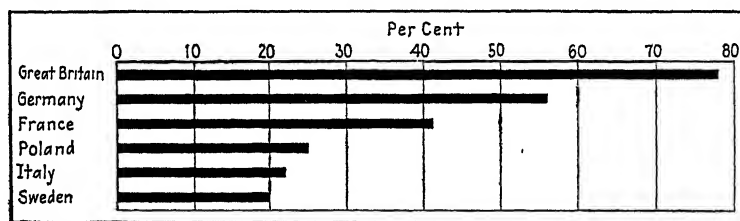


FIG. 92 —Urban population, percentage of the total population that lives in cities of over 10,000 population

than at present, with a distinctly higher standard of living. The distribution of population, however, would presumably be different if there were virtually free trade and low militaristic expenditures. The more favored areas would doubtless gain and the less favored lose. Indeed many millions of people in Europe are now struggling against such handicaps of unfavorable environment that their farms or other sources of livelihood should be combined with those of a neighbor or else abandoned. The virtual abolishment of tariffs would unquestionably lead to the abandonment of many of the less profitable mines and factories and the return of much marginal farm land to forest or pasture. Large bodies of good farmland would also be put to different uses than at present, and probably much of the land would require relatively fewer workers.

The relative growth of the urban centers which has been so striking a feature during the last century is likely to continue, but it is to be hoped that with cheaper transportation the centers will cover much more ground and be far less congested. Many of the people may, indeed, do considerable gardening for their family use, as is already being done in Belgium and to a lesser but increasing extent about other urban centers.

LOCAL DISTRIBUTION OF POPULATION

Europe contains relatively few farmsteads, as most of the farmers reside in country villages. This is least completely true in the favored North Sea region and most true in the remote areas of Russia, Italy, and Iberia. Except for some parts of central Sweden most of the agricultural workers need to walk considerable distances from their homes to their fields. The location of the villages commonly depends on the availability of a water supply, and, if this is widely available, upon the location of highways. Some villages occupy land less desirable for agriculture than adjacent tracts. The materials used for the construction of residences vary to a striking degree. Lumber is commonly used in and near the forested regions of the northeast and north and near the higher mountains but is sparingly used in other places, where brick, stone, or adobe prevail. The heights of the city dwellings vary with the latitude, being greatest in the comparatively sunny Mediterranean lands and distinctly less in the darker north. The deficiency of daylight in winter in northwestern Europe is one reason why skyscrapers are less popular there, as they shut out light from adjacent buildings.

RACIAL TYPES

A special phase of the distribution of the population is the distribution of racial types. Three major subraces are well represented: (1) the brunet long-headed Mediterranean in the south and also in the west as far north as Britain; (2) the blond, long-headed Nordics in the north; and (3) the intermediate Alpine in the east and center, with many representatives in the Balkan Peninsula. The Mediterraneans were present in Europe during the glacial period, and dominated Britain in pre-Roman times. The Nordics spread widely during several centuries, but during the last century or two have been gradually displaced by the most recent great arrival, the Alpine. The rapidly increasing Russians are a branch of this subrace as are most east central Europeans. Another noteworthy racial change in Europe is the recent increased significance of the Jews, not in matter of numbers, as there are still relatively few, but in commercial, educational, and political influence. Jews are especially powerful in Russia, Germany, and Poland.

MIGRATION OF THE CENTER OF POPULATION AND OF INFLUENCE

During historical times density of the population has increased greatly in almost all parts of Europe but especially in the northern and western sections. Although there are now at least twenty times as many people per average square mile in the Mediterranean province as at the dawn of history, according to the estimates of anthropologists, the increase in the marine climatic province of northwestern Europe has been much greater, because the population was formerly much smaller, but now it is

nearly double the average for Mediterranean Europe. Furthermore, partly because of the greater use of local coal and of the resources of other parts of the world, the northern people are more productive as individuals and have accumulated more wealth and attained more influence than have the southern (Fig 93).

Another important cause for the relative decline of southern Europe has been that its "functional location" has changed from being the front door of Europe to being the back door. Formerly, not only did most Europeans face the Mediterranean commercially but most of the imports from India and the Indies entered Europe from the southeast. When

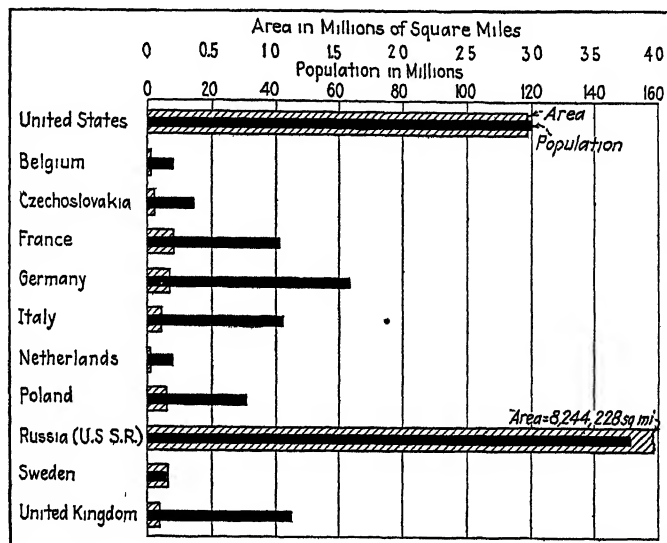


FIG 93 —Area and population of specified countries.

the Turks practically stopped the traffic between the Mediterranean and the East, and the trade went around Africa, the Mediterranean was replaced by the Atlantic as the more important avenue of approach, and Europe began to face westward. Furthermore, western Europe is closer to North America and has benefited more by its resources as well as those of other continents than has southern Europe.

A third influence which helped northern Europe to replace Mediterranean Europe as the most important part of the continent was the greater depletion of some of the resources at the south, while at the north new resources were being made available and the soil improved by drainage, tillage, and fertilization. The cutting away of the forests, the carrying away from the steeper slopes of part of the soil, and the gradual deterioration of much of that remaining have all hastened the decline in the south, while the opposite result was taking place in the north.

Although some new mineral wealth has been discovered in the south, much more has been found in the north. The use of the coal alone is of enormous importance in this respect, but numerous mines of iron, potash, zinc, etc., have also been opened. Conversely, the exhaustion of southern mines has been far more significant than has the exhaustion of northern mines as yet.

There is some evidence, moreover, that the climate of southern Europe was better formerly for mankind than at present, while unquestionably conditions were less favorable in northern Europe. Ellsworth Huntington and various others have concluded that during the classical period and at various other times the Mediterranean region had dis-

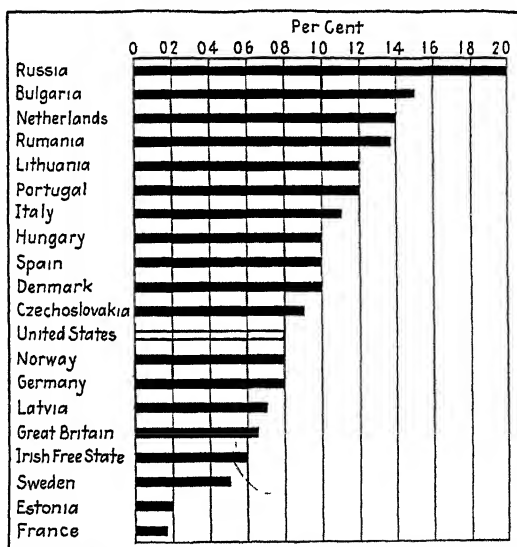


FIG 94 —Natural increase of population, excess of births over deaths, average annual increase, 1923 to 1927

tinctly better summers—less persistently dry and monotonous—because cyclonic disturbances more often affected them. Northern Europe, on the other hand, had distinctly more severe storms and harsher extremes at various times in the past than at present. Furthermore, the widespread use of window glass, the artificial heating of houses with wood and coal, and improvements in overcoming the inclemency of the weather have all made northern Europe better suited for mankind, so far as climatic conditions are concerned. These cultural advances helped southern Europe less. Just how significant the changes in climate and adaptation to it by cultural improvements have been, it is not now possible to determine, but presumably they have been important.

A considerable amount of racial deterioration has occurred in the south partly because of malaria, typhoid, syphilis, and various other diseases which have spread more widely there than toward the north. Another cause of racial deterioration has been the increasing proportion of the population that belonged to the peasant and servant classes. Such an increase has occurred seemingly quite generally in centers of civilization, which tend likewise to become centers of luxury, where there are few children in the families of the more intellectual classes.

These several influences and historical changes seem to offer a rather satisfactory explanation of the northward and westward migration of "the star of empire" or the "center of civilization", which has occurred in Europe.

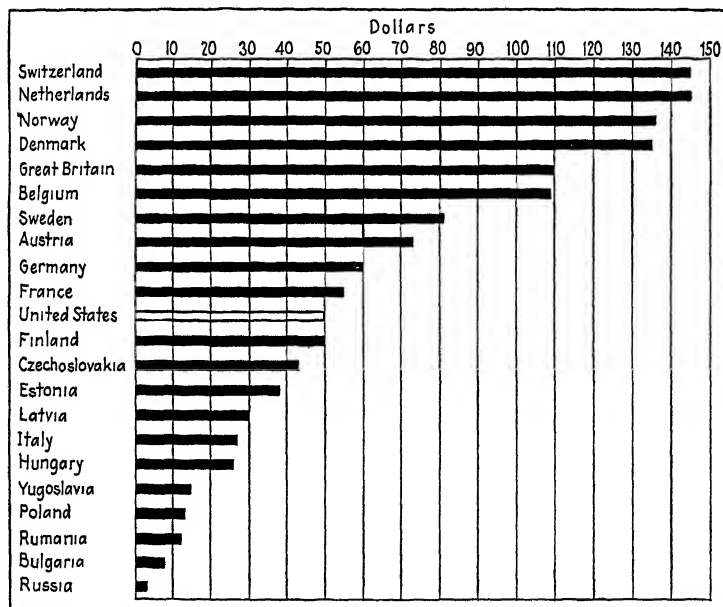


FIG 95 —Per capita consumption of imported commodities, 1928

Let us briefly sketch the major shifts in the location of the centers of most advanced civilization in Europe during historical times. About 1000 B. C. the island of Crete, which is the most southern part of Europe, was, according to archeologists, the most advanced in civilization of any part of Europe. A few centuries later the center of civilization had shifted to Athens, which is about 200 miles northward and a little westward from Crete. After a glorious development in Greece from about 500 to 200 B. C. civilization waned there and the center was for quite a time at Rome, some 300 miles north and 600 miles west of Athens. During the Middle Ages, especially during the Renaissance, northern

Italy and eastern France appear to have contained the rather diffuse center of civilization, with temporary outliers in other lands. During the modern period the areas bordering the southern shores of the North Sea have clearly led, and London has been approximately the center of greatest advancement

With each shift of the center there has been improved accessibility to a larger and richer area, one that contains more people living on a higher plane. It has also meant an improvement in climate which has been discussed at some length in Chap. II

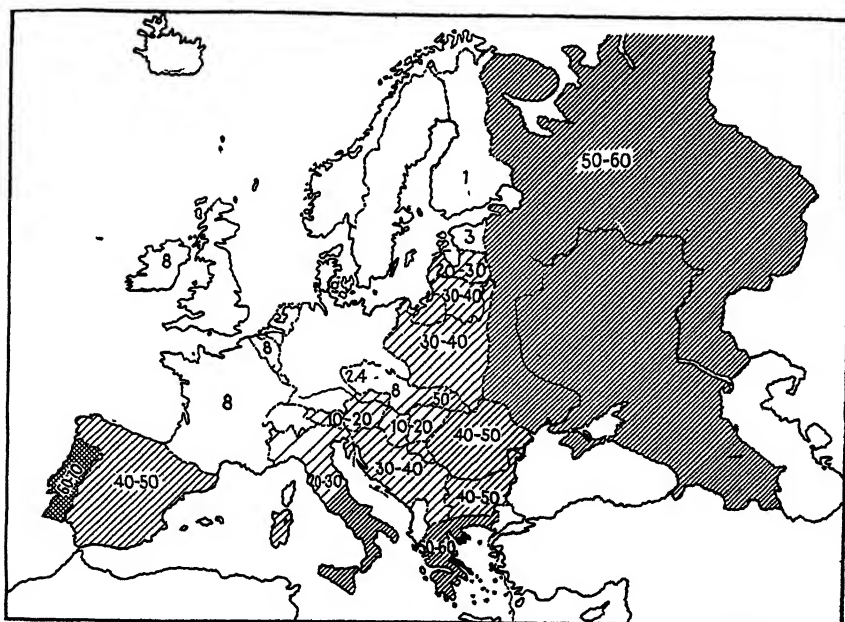


FIG. 96—Illiteracy, the heavier the shading the greater the illiteracy. White is less than 10 per cent of those over ten years of age, white areas with no figure have practically no illiteracy

Some people have suspected that the honor of leading Europe in civilization passed from Britain to Germany shortly before the World War, and since then has passed to Russia (Fig. 94). Obviously both Germany and Russia are more populous than Britain, their capitals are farther north, and both have made social experiments which may prove to be important advances. But also unquestionably the per capita resources of Russia are far less than those of Britain, the climate is distinctly inferior, and the accessibility of the country from other advanced regions is less. In far milder measure, Germany also seems to fall somewhat short of Great Britain in these respects. Hence, from a

geographic viewpoint, it seems improbable that the center of civilization has shifted to Russia or even to Germany. As the resources and cooperation of other parts of the world are having increased significance, it appears that Britain's advantages of location and resources at home and abroad and exceptional cooperation from related peoples will continue to give that country a distinct advantage for a long time to come (Figs. 95, 96).

CHAPTER VIII

DISTRIBUTION OF MANUFACTURING

Comparative Importance of Europe in Manufacturing.—Europe is by far the most important of the continents in manufacturing. Only very recently, in fact, has any other done even a sizable fraction as much. Furthermore, although Europe has long been comparatively significant for manufacturing, Asia, with its much greater population, was not so far behind until the industrial revolution introduced machinery run by power, a century and a half ago.

The comparative significance of manufacturing in the various parts of the world is suggested by Fig. 97. This shows that in only a small

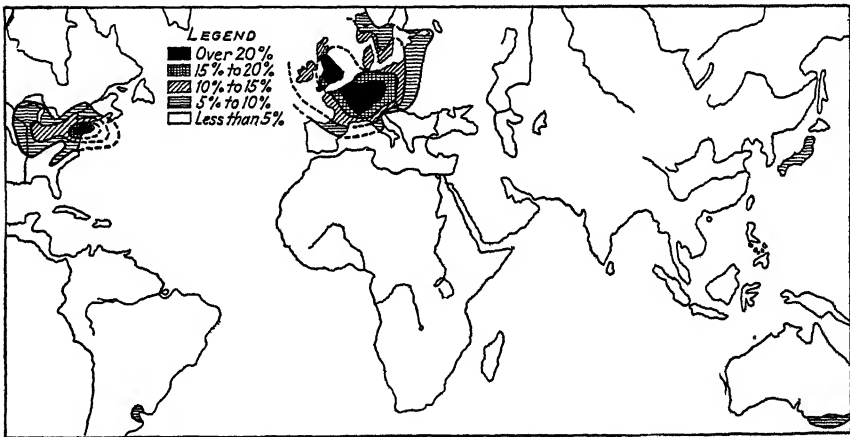


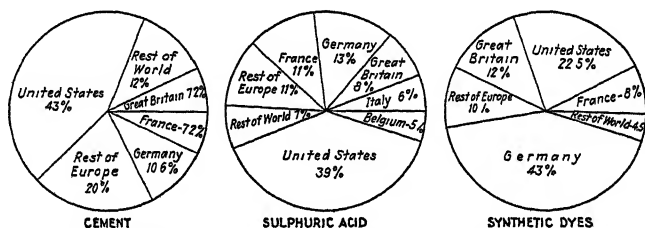
FIG. 97 —Distribution of intensity of manufacturing so far as it is shown by the percentage of the gainfully employed population engaged in it (From Huntington and Cushing, *Principles of Human Geography*, John Wiley & Sons, Inc., by permission.)

percentage of the land are as many as 5 per cent of the gainfully employed persons engaged in manufacturing. In northwestern Europe, however, and in a small part of the United States, more than 20 per cent of the working people are engaged in manufacturing. As the percentage decreases rather rapidly eastward and westward and still more rapidly southward from the European area of most intensive manufacturing, it is apparent that most of Europe's preeminence as a manufacturing region is caused by the exceptional output of only a small part of the continent. This is the same region, moreover, that is exceptionally active in agriculture and mining, especially supplied with transportation facilities,

particularly active in commerce, and also most healthful (Figs. 16, 75, 79, 95, 98, 100).

Before discussing the distribution of manufacturing in Europe in some detail, a historical resume of the development of manufacturing and of the progressive changes in its distribution will be of interest.

Changing Significance of Manufacturing to the Individual.—The total amount of manufactured goods has increased enormously in the last century and a half, but even at the dawn of history such goods made up a large share of human wealth. At that time, indeed, little of the land surface had value, and in only a few spots was value attached to the mineral wealth underground. Hence wealth consisted largely of domestic animals, including slaves, and of buildings and other manufactured goods. Although the latter were comparatively limited in quantity and not very diversified, they were often precious because their manufacture entailed so much labor, and the requisite skill for their production was so rare. For example, a good sword was worth more than numerous good horses or even many slaves, while tapestries often represented many years work



FIGS. 98 TO 100.—Percentages of world's production of important basal materials, 1927 or 1928.

of several people. Not uncommonly a building of a size and quality which could now be erected in a few months, at the cost of the total annual earnings of only a few score laboring men, required decades or even centuries to construct and hence had great comparative value. For example, the possessor of a good castle was so much more powerful than his neighbors without one that he commonly dominated them and received homage and free service from them. Even the wealthiest men of today are less conspicuously better off than the generality of their fellow men. Indeed experts have concluded that the average man has increased in comparative value century by century, as is shown by the gradual rise in real wages and by increased privileges, while the possessors of vested capital, the aristocracy, have come to have fewer and fewer advantages over their humbler fellows. During the last century there have been, indeed, very numerous instances of individuals previously poor who accumulated large fortunes within a few years, proving the lessened significance of the possession of accumulated, inherited, goods.

In other words ability, training, objective, energy, and persistence are of increasing importance, and inherited capital of decreasing significance.

Increasing Use of Manufactured Goods.—Although the possession of manufactured goods no longer entails the same power to the possessor that it did in ancient and medieval Europe, chiefly because now even those too poor to have many goods of their own commonly have the use of those owned by companies or by the government, nevertheless, manufacturing is of increasing importance. This is because more and more power from other sources than man's muscles has been applied to the production of goods. Hence manufactured goods have become progressively cheaper. Accompanying this cheapening there has been an enormous increase in the number of people who use them, and an equally vast expansion in the consumption of goods by each of the individuals who use them.

Distribution of Early Manufacturing.—Before the industrial revolution the amount of manufacturing varied in rather close harmony with the density of population and its advancement. Hence in early ancient times it was carried on in Europe mainly in the eastern part of the Mediterranean region. During the period when Crete led in civilization, much fine manufacturing was done there, as is shown by numerous works of art recently uncovered by archeologists working on that island. The manufacturing of ancient Greece included certain types, particularly sculpture and architecture, that have scarcely been excelled. When southern Italy led, much manufacturing was carried on there, and many interesting samples have been disclosed in the excavation of the ruins of Pompeii, covered by ashes from Mount Vesuvius in A. D. 79. Likewise during the Renaissance, the cities of northern Italy were comparatively very active in manufacturing, and some of the more valuable things made there then, particularly the works of art, armor, and church furniture, are still extant. (The activity of the period is vividly described in Benvenuto Cellini's autobiography.) During the so-called Middle Ages, manufacturing was carried on in guilds in various towns and in the feudal manors. The former type was relatively important in what is now Germany and the latter in England and France.

Previous to modern times the presence of sources of power or even of superior transportation facilities had relatively little influence upon manufacturing. One of the chief exceptions was the flour mills run by water wheels in England where such mills became rather common several centuries ago. Of most importance in locating manufacturing, aside from the concentration of population in towns, was the interest of the more influential people. Some feudal barons scorned all but the crudest homemade furniture, clothing, and other equipment. In the territory of such barons relatively little manufacturing was carried on as compared with the amount in the territories of barons who actively

encouraged manufacturing, and who frequently brought skilled workers from a distance.

Local Market for Early Manufactures.—During the Middle Ages manufacturing was carried on chiefly in the immediate vicinity of the places where the goods were used. Some important reasons for this were (a) the poor transportation facilities, (b) the numerous tariffs and tolls extracted when goods entered other feudal domains, and (c) the great danger of their being stolen by pirates on the sea or rivers, or by robber bands upon the land. Other conditions also discouraged the manufacture of more of any commodity than required locally. For one thing the sale of the surplus in other areas was rendered difficult by sharp local differences in style, and also by the lack of confidence in the quality of the goods. Whereas at present people in many lands use identical types of many sorts of goods, some of which are made far away by an alien people, in the Middle Ages each community took pride in the distinctiveness of its wearing apparel, furniture, ornaments, and also

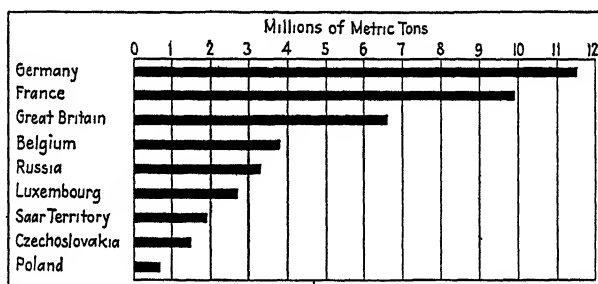


FIG 101.—Pig iron production, 1928.

even of its language. The numerous dialects and mediums of exchange in use also interfered with widespread trade, as did religious intolerance and intense suspicion amounting almost to hatred of all "foreigners."

RISE OF SPECIALIZATION

Gradually, however, certain localities were able to specialize more and more in manufacturing as the market for their goods expanded. The Hanseatic League of north Germany and the Baltic countries extended the trade in that part of the world notably and thus facilitated manufacturing. The commercial activities of the Dutch in the sixteenth and seventeenth centuries afforded a market for some local manufactures, and hence a considerable expansion of the manufacture of woollens and linens occurred. With the help of Flemish weavers the woolen industry of England expanded, and before long there was a surplus for export.

Thus even before the industrial revolution commenced, the area bordering the North Sea was conspicuous for the amount of manufactur-

ing carried on by the guilds of the Hanseatic League, in the Low Countries, and in England. At that time there was, however, little manufacturing in most of Europe, even for local use, as most of the people had very few belongings. The chief exceptions were cities and towns of eastern France, northern Italy, and those on the trade routes between the latter and the Hanseatic cities.

The Industrial Revolution.—The industrial revolution and the resultant concentration of manufacturing in factories greatly cheapened manufactures and therefore helped to extend their use. Not long after the revolution commenced in England, the steamboat was invented and before long the locomotive. These assisted enormously in assembling raw materials and in distributing manufactures. The invention of the cotton gin permitted cotton, which had previously been of almost insignificant importance, to become the chief textile, and the discovery of far cheaper methods of making good iron and steel aided conspicuously (Figs. 101, 102).

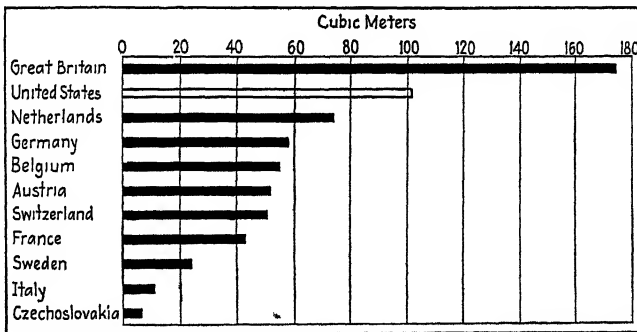


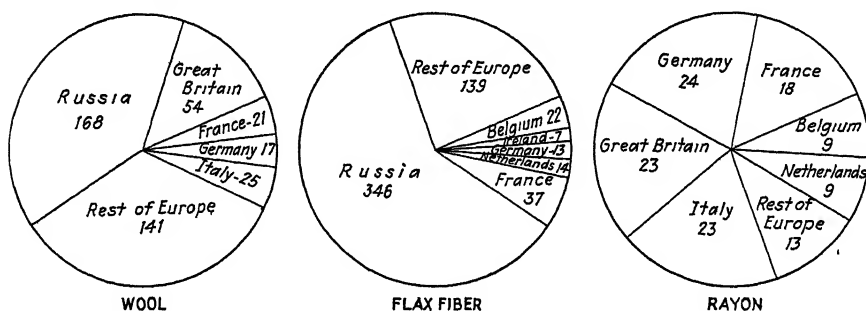
FIG 102.—Gas used per capita, 1928.

Multiplication of Manufacturing in Britain.—Manufacturing soon expanded enormously in England in response to several favorable conditions including the following.

It happened that Britain possessed excellent deposits of coal, favorably distributed and cheaply mined, as well as good deposits of iron ore and comparatively large local supplies of wool. Furthermore, Britain is the nearest part of Europe to the South, where cotton was chiefly grown. The further fact that the chief cotton growing region was a former English colony aided the British in obtaining their chief textile, the raw material of their most valuable export. Until comparatively recently cotton goods have been manufactured in other lands almost exclusively for local consumption, with the result that Great Britain has exported more by far than has all the rest of the world combined (Figs. 103–106). The great expansion of industry was also aided by her numerous colonies and

by the fact that skilled workers and other experts from less favored lands were encouraged to settle in England and contribute to its prosperity.

Spread of the Revolution from Britain.—The use of machinery and power spread gradually from Britain, first to Belgium and northwestern France and then to adjacent Germany. In most parts of the world the steamship and the locomotive were the first great illustrations of the use of power and extensive machinery, but these are not used directly for



Figs 103 to 105.—Production of the textiles, 1928, in thousands of metric tons. Totals: wool 427, flax fiber 577, rayon 119.

manufacturing. The first factories to be introduced in other lands were usually flour mills and the next knitting mills, which often used yarns imported from England. Later textile mills capable of using the raw materials were constructed with machinery from England and often also with skilled British supervisors.

The spread of the factory system from England and Belgium into other lands was delayed by several conditions. One was that the British

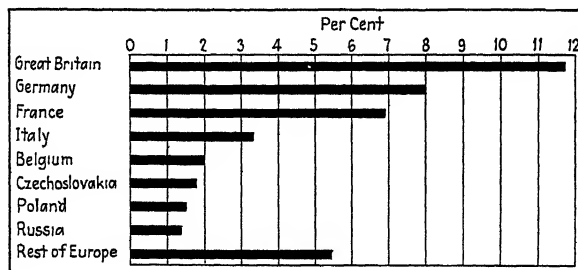


FIG 106.—Jute consumption, 1928, percentage of world's total.

and Belgians were so favored by natural resources, location, and the possession of an unusually energetic population, presumably partly due to their exceptionally favorable climate, that they could produce manufactures of good quality more efficiently, and hence cheaper, than could other lands. Therefore until the spirit of nationalism had intensified sufficiently so that people were willing to pay a higher price for inferior

goods made in their own country than for superior imported goods, the spread of factories was slow. As nationalism intensified, however, tariff barriers were raised (Fig. 135) and even bonuses paid to encourage exportation, and these procedures permitted factories to develop in many places far less favored than Britain. In recent years it has been the ambition of many of the popular leaders in a large number of countries to have their countries cease importing any manufactures that can presumably be produced with any considerable degree of efficiency in their own lands. As a result, the citizens of many countries have borrowed capital, imported machinery, and often also the raw materials and even the fuel, and have commenced competing, at least locally, with the well-established, more efficient manufacturers of other lands.

Trends in the Spread of Manufacturing—Some of this spread doubtless will be permanent, but presumably as tariff walls are lowered, the geographical advantages of certain favored areas will again have greater influence in localizing manufacturing. It seems not altogether impossible that in the distant future if the United States of Europe becomes an actuality, instead of merely a desired objective, manufacturing may be distributed somewhat differently than at present. What has happened in the United States suggests, perhaps, what may occur in Europe. Despite the lack of tariffs between the states, the intensification of sectionalism, the counterpart of nationalism, favored the local manufactures and helped manufacturing spread widely from the region of its first great development. This was aided of course by the considerable cost of transportation from that area, which is far from the center of population. Furthermore it gradually became apparent that the New England region was less favored geographically in several important particulars than either the adjacent area to the south, a considerable area in the Middle West, or a small part of the Pacific states. Hence there has been presumably a permanent extension of the area of intensive manufacturing. Despite innumerable attempts to carry on extensive manufacturing at considerable distance from the favored area, however, success there has been chiefly limited to items for which especially favorable local conditions prevail.

Presumably the amount of manufacturing done in each country of Europe will increase decade by decade, because of progressively higher material standards of living and the persistent tendency to prefer goods made in one's own land, if not conspicuously inferior in quality or style and if not higher priced. The saving of time also favors local goods. Doubtless certain areas, not now very important for manufacturing, including northern Italy, Bohemia, and some other localities, have sufficient advantages to offset their disadvantages and permit them to become important. Moreover for the production of some commodities various other localities are favored, and in such places a great expansion

may occur in the items favored, and to supply the more immediate needs of the increased population that will be supported thereby.

PRESENT DISTRIBUTION OF MANUFACTURING

Statistics as to the value added by manufacture are available for very few European countries, and even the total value of manufactures is not available for nearly all. Perhaps the most satisfactory statistical evidence of the contrasts in the importance of manufacturing, therefore, is the percentage of the gainfully employed who are engaged in manufacturing. This is shown approximately in Figs. 97, 209, which reveal a striking contrast. The black area of Fig. 97, which includes much of Germany, eastern France, the Low Countries, most of England, and southern Scotland has more than one-fifth of its workers engaged in manufacturing. From this small area the percentage falls off rapidly in all directions, most rapidly toward the southeast and least rapidly northeast, toward Finland. In most of Europe fewer than 5 per cent of the employed people are engaged in manufacturing.

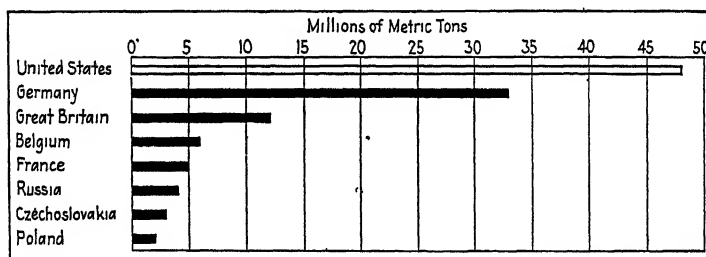


FIG 107 —Coke production, 1928

Analogies in Intensity.—The distribution of intensity of manufacturing resembles in a general way the distribution of civilization (Fig. 21), of healthfulness (Fig. 35), of most favorable climate, and of the use of power (Figs. 102, 107, 158, 160). It also shows considerable correspondence to the map of density of population (Fig. 87).

The area of most intense manufacturing is conveniently situated with respect to coal, but part of it, southeastern England, most of Netherlands, the upper Rhine Valley in Germany, and Switzerland, has no coal. Conversely, the Donets coal field of eastern Ukraine, although now the chief industrial area of Russia, had recently less than 5 per cent of its population engaged in manufacturing. It is apparent, therefore, that the mere presence of coal is far less significant in determining where manufacturing is important than are certain other conditions. One of these is the energy of the people and another is the availability of electric power, from hydroelectric plants or from perhaps distant power plants that are so situated that coal can be obtained readily, London, for example.

Subregions of Intensive Manufacturing.—Within the black area of Fig. 97 four subregions may be recognized (1) the British part, (2) the area extending from extreme northern France across Belgium and southern Netherlands to include the Ruhr district of Westphalia, Germany, (3) extreme eastern France and southern Germany, (4) the area from Berlin to Bohemia. The second of these, from France to the Ruhr, is the most important, for it produces a considerable share of the world's steel, chemicals, glass, electrical equipment, and innumerable lesser items. But as it is divided between four countries its comparative importance is not readily apparent. Next in importance is the British subdivision, in which something like \$5,000,000,000 was added by manufacture in 1924. About \$1,700,000,000 of this was added to the value of the raw materials in the manufacturing of ships, machinery, hardware, rails, autos, etc., chiefly from steel. Other chief items in this area are textiles (\$1,200,000,000 added), foodstuffs (\$1,100,000,000), paper and printing, chemicals, and the manufacture of products of clay, glass,

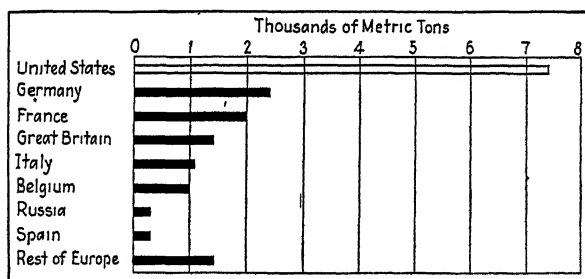


FIG 108 —Sulfuric acid production, 1928

and stone (total \$1,000,000,000). The third area, easternmost France, southern Germany, and northern Switzerland, is also important for the manufacture of steel, textiles, chemicals, and electrical equipment. Other items meriting mention are instruments of precision, including optical instruments, watches and clocks, toys, and dyestuffs. The fourth area, Berlin to Bohemia, carries on a great variety of manufactures including textiles, glass, bookmaking, beer, and sugar (Fig. 108).

The noteworthy physiographic diversity within any of these several important manufacturing districts, as appears conspicuously on the physiographic diagram, makes it evident that relief is only one influence and often a minor one, provided a small amount of fairly level land is available for factories.

Lesser Subregions.—Beyond the area of most intense manufacture five areas of considerable importance may be mentioned. (1) The Lyon-St Etienne and Marseille region of southeastern France, important for its production of soaps and other products of vegetable oils in Marseille,

lace and other textile goods in Lyon, and steel and aluminum in St. Etienne. (2) Northern Italy, especially the Po Valley, has long been of considerable importance as a manufacturing center. Moreover many new or enlarged factories have recently been constructed to manufacture silk, rayon, machinery, and a large share of the other manufactured products used in Italy. (3) Barcelona is the chief manufacturing center of Spain, and though far less important than the foregoing it may be mentioned as a center of considerable significance. (4) The region from southern Norway to southern Finland is of importance for high-grade steel, paper pulp, lumber, and matches and likewise in Norway the production of aluminum and nitrates is appreciable. (5) Most of Russia's manufacturing is done in the Moskva (Moscow) region and on or near the Donets coal field of Ukraine. Although the output is still relatively small, there has been so great an expansion recently that it seems likely that the Moskva to the Black Sea area may soon become

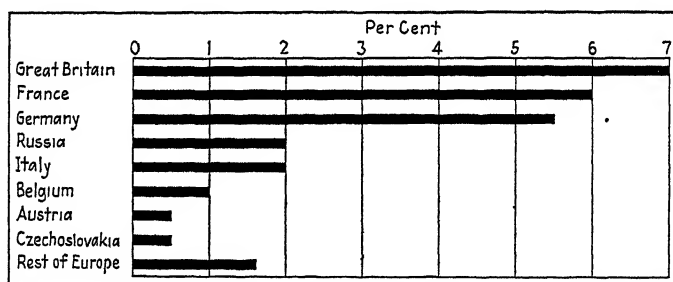


FIG 109.—Rubber consumption, 1928, percentage of world's total

one of the secondary centers of European manufacture. Textiles are chiefly manufactured in the Moskva district, while flour, steel, machinery, and tractors are of importance in the southern, Ukraine, section.

Conspicuous City Centers.—Within each of the several subregions mentioned in the two preceding paragraphs are numerous cities, most of which produce in addition to almost innumerable other items, some one or two items that are especially prominent. An attempt is made on Figs. 110 to 115 to show the more conspicuous centers for the manufacture of some thirty especially important items. The selection of the cities designated does not imply, however, that these items are made chiefly there, for some of them, such as leather goods, flour, brick, toys, and wearing apparel, are made in every large city, and hence the conspicuous centers produce only a small fraction of the total for Europe. Furthermore in even the most specialized of the centers a great variety of manufacturing is done in addition to the items specified. For example, although London, Paris, and Berlin are marked as conspicuous centers in the manufacture of only a few items, they are in fact important centers

in the manufacture of many hundreds of items. Obviously in such a case only those items that are exported in largest amounts can be shown on such maps as these. Furthermore some cities not designated on these maps as "conspicuous centers" in the production of any one of these items may merit such designation, but in order not to crowd the maps too badly they have been omitted. Finally, the available information as to the comparative rank of cities in the production of specified manufactures

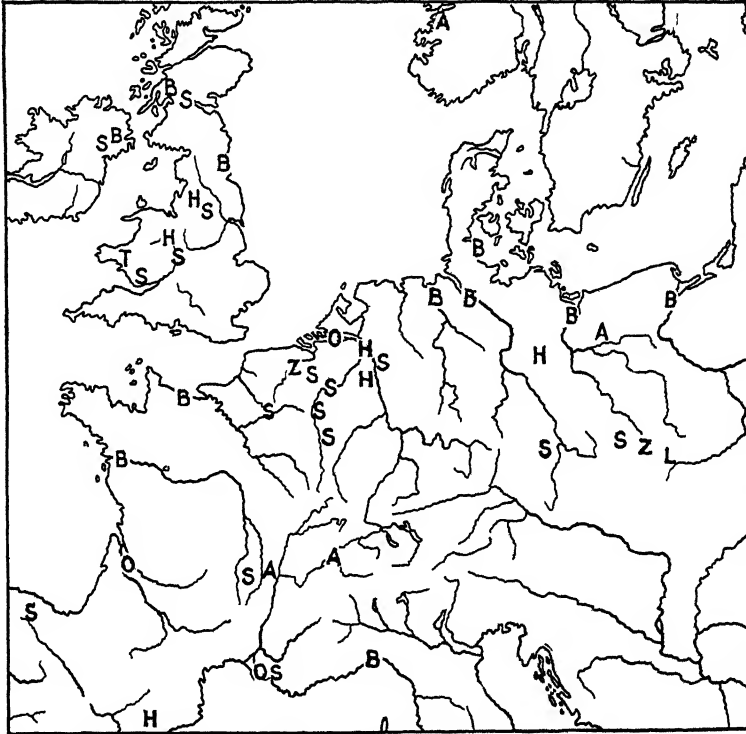


FIG. 110.—Conspicuous centers of the manufacture of steel *S*, ships *B*, hardware *H*, the smelting of zinc *Z*, tin *T*, aluminum *A*, lead *L*, and the refining of petroleum *O*. Baku and Grozny, in Russia, also have important oil refineries and Nikolaev a considerable steel industry.

is far from satisfactory, and some centers which should be shown are omitted because information concerning their rank was not available.

Geographic influences have affected conspicuously the localization of the manufacture of nearly all the items dealt with in Figs. 110 to 115, but space is available to discuss briefly the conditions affecting only the more important items.

Steel.—The several centers conspicuous in the production of steel shown in Fig. 110, Birmingham, Middlesborough, Lille, Essen, Praha, Breslau, etc., are alike in having both local supplies of coking coal and of

iron ore, although in several instances the local supplies are now supplemented by imported ore or, in fewer cases, by imported coal. Of the latter type, Bilbao, Spain, which uses considerable coal brought as a return cargo from England by ships coming for ore, is the chief example. The Belgian and west German steel centers now import most of the required ore, chiefly from Lorraine or Sweden, while England imports more than one-half of its ore from varied sources including Sweden, north Africa, and Spain. Because the raw materials and also the finished products can be transported to advantage on ships, most of the centers

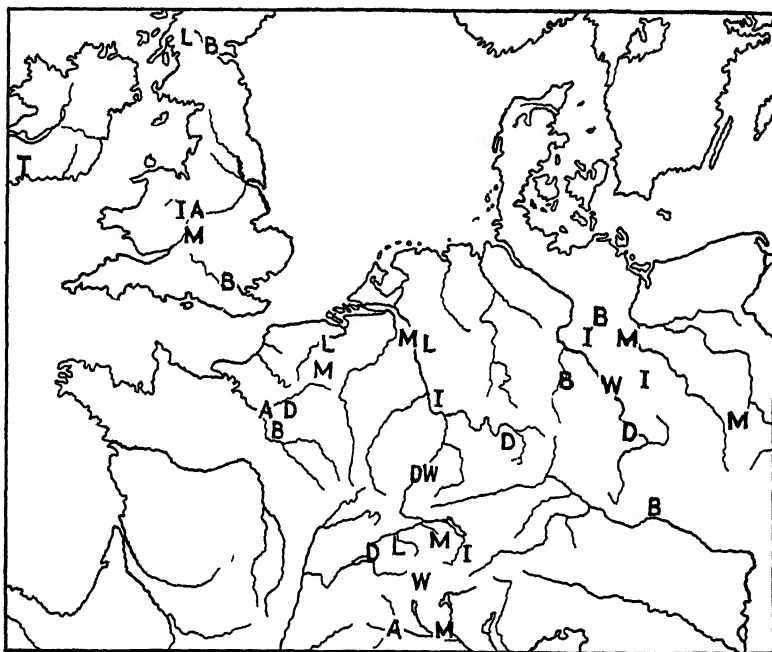


FIG 111 — Conspicuous centers in the manufacture of machinery including agricultural machinery *M*, locomotives *L*, automobiles *A*, tractors *T*, instruments including optical *I*, clocks and watches *W*, dolls and toys *D*, books *B*, Rostov, Russia, is also important for agricultural machinery and Stalingrad for tractors

of steel production are on the coast or, in the case of the Ruhr district, on a navigable river, the Rhine. Among the numerous centers that were formerly important, those that can not be served by ships have nearly all suffered a relative decline. The Belgian center is the chief exception, and the far less important Silesian center a minor exception.

The manufacture of machinery (Fig 111), hardware, and ships (Fig. 110) is carried on largely in or near the centers of steel manufacture which are most commercialized. Ships are, of course, built upon the coast or on a canalized river, but hardware, having a high value per ton, is often produced inland.

Textiles.—The textiles are manufactured very widely, but there are centers in respect to each of the types (Fig. 112). Woolens are manufactured chiefly in areas which were important sources of wool before the industrial revolution. In Britain most of the woolen mills are on the eastern side of the Pennine Range, where coal is available but where the climate is less moist than on the western side, and where sheep thrive better. Conversely, cottons are largely manufactured on the humid western slopes of the Pennines, partly because, before the cotton factories were all artificially humidified, the cotton thread was less likely to break during manufacture there than in drier more eastern England. The importance of woolens in Russia is related to the long cold winters there;

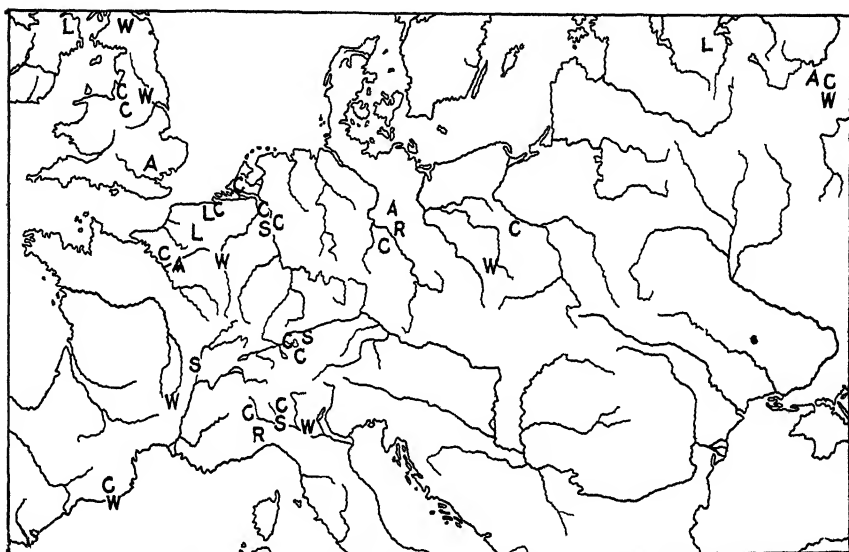


FIG 112—Conspicuous centers of the manufacture of textiles wool W, cotton C, silk S, linen L, rayon R, and wearing apparel A (Wien should be marked A).

and the winters of Germany also help explain the considerable manufacture of woolens there. In France, on the other hand, the large export of stylish wearing apparel of light-weight woolens helps account for the large amount of wool used in manufacture (Fig. 26).

Silk manufacturing in Europe centers largely in the areas where the raw silk is produced, where the mulberry thrives, and where, partly because of the mildness of the climate, the population is fairly dense but skilled. The chief exception is Krefeld, Germany. However, most of the silk used, except in Italy and Spain, is imported.

Rayon depends largely on wood pulp for its raw material and on chemical and mechanical rather than manual skill. Its production has spread much more widely than that of silk especially toward the north.

This is partly because rayon in many ways takes the place of silk. Nevertheless, the Italian silk-producing area is important for rayon also.

Linen is produced in areas important for flax growing, although the Irish center now imports nearly all of the raw material from Belgium. That country, in turn, imports from Russia. There and in Poland and the Baltic states much flax fiber is made into linen by hand in the peasants' houses as well as in factories.

Chemicals —The distribution of centers of the production of chemicals depends upon the availability of the raw materials, such as the great

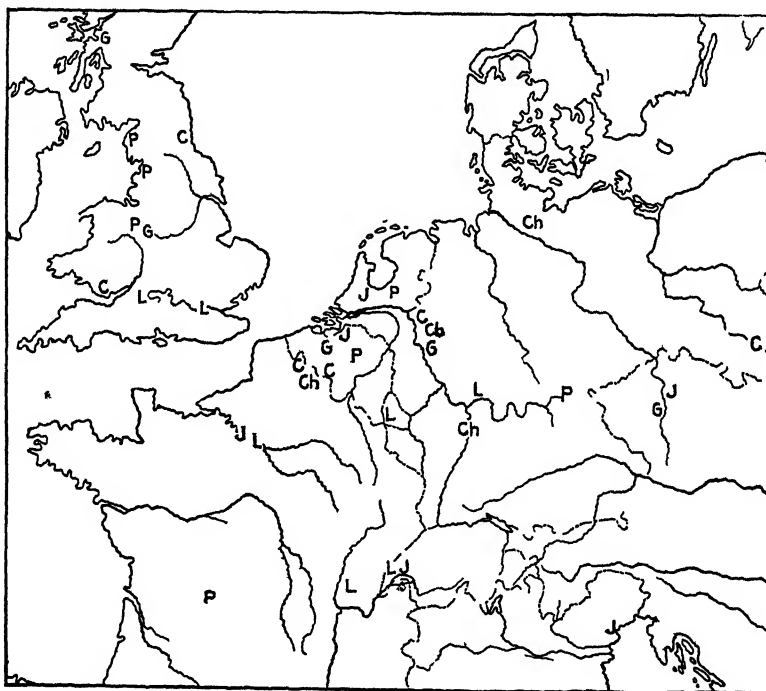


FIG. 113 —Conspicuous centers for the manufacture of glass *G*, porcelain and pottery *P*, coke *C*, chemicals *Ch*, leather goods including gloves *L* (Moskva is also important), jewelry including diamond cutting *J* (Dresden and Sévres should be marked *P*).

deposits of various salts at Stassfurt, Germany (Fig. 197) and the numerous by-products remaining after the making of coke in the Ruhr and west Britain (Fig. 107). It also depends on the special skill of some of the people, for example, the chemists of Germany and, of course, on the local demands for the products. The demands are greatest in the most advanced areas, and hence the chemical industries are located there, even if the raw material has to be imported (Fig. 113). For example, most of the 22,000,000,000 pounds of sulfuric acid made in Europe in

928 was made with imported sulfur, Italy, the chief European source of sulfur, producing only 6 per cent (Fig. 108).

Smelting—The smelting of tin, lead, and zinc is largely done in localities having abundant fuel that have, or formerly had, local supplies of the ore, and which are located so that foreign ores can readily be imported (Fig. 110). In Wales, however, the tin smelters and especially the main factories using tin are partly a response to the exceptional ability of the workers to withstand high temperatures. Wherever workers are required to withstand intense heat for long periods, as in factories where tin plate is being rolled out or in stoking the fires of steamships, it has been found by abundant experience, according to F. W. Gregory and numerous others, that Welshmen can stand the heat with fewer cases of heat prostration than can any other people.

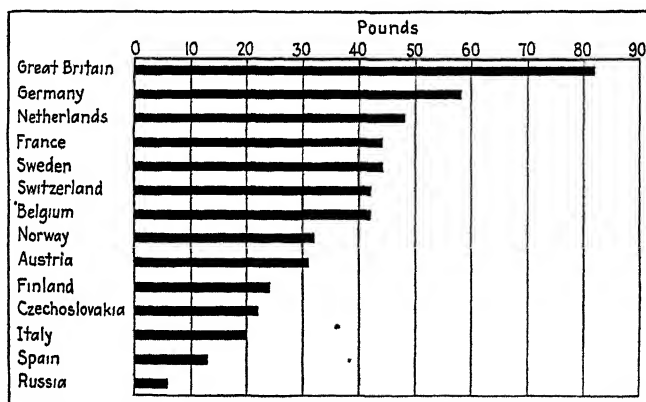


FIG. 114.—Paper consumption per capita, estimate for 1927.

The zinc smelters of Belgium, among the largest in the world, now use only imported ore, but the Silesian smelters use almost exclusively local ore.

Oil is refined not only near the chief oil producing areas, Baku, Grozny, and Galati, but also at certain ports into which much crude oil is shipped, especially Hamburg, London, Marseille, and Rotterdam.

The manufacture of aluminum depends chiefly on the availability of cheap power for smelting the highly refractory ore. As southern Norway has more hydroelectric power than can be sold at a good price, an increasing amount is being used to smelt bauxite and also to make artificial nitrate. A similar situation obtains in parts of Switzerland and in the upper Rhone Valley, near the source of much of the ore. The considerable German output of aluminum depends, however, on cheap lignite rather than on water power.

Tractors.—Fordson tractors are built in a large factory in Ireland. This is partly a response to relatively cheap labor, but it is also due to the fact that tractors are on the American free list, and also can be carried cheaply in the partly empty ships which go from Britain to all the great regions exporting foodstuffs. In order to avoid paying tariff duties, automobiles are made by subsidiaries of American companies in each of the countries having a large market. As France offers the largest market, automobile production near Paris is especially important. Brit-

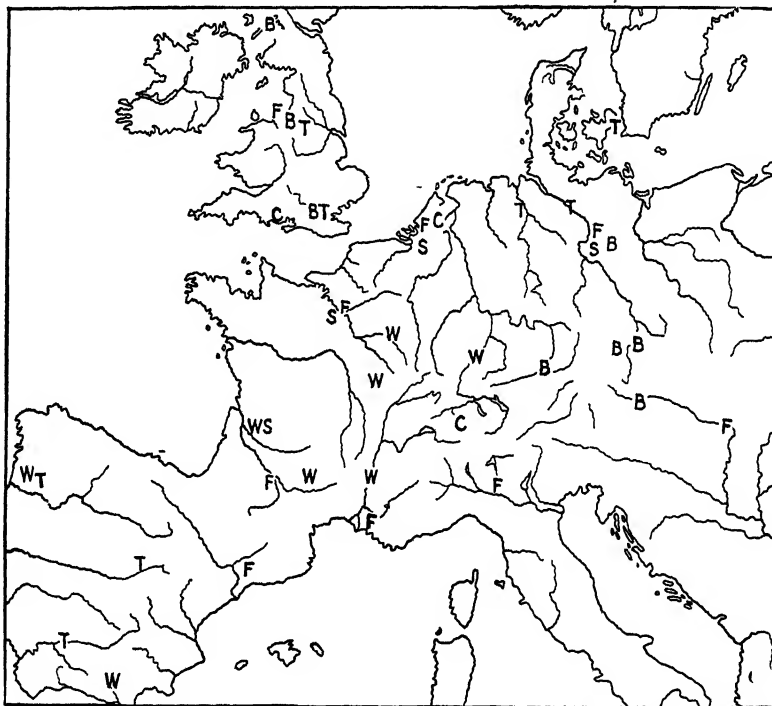


FIG. 115.—Conspicuous centers in the manufacture of flour *F*, sugar *S*, beer *B*, wine *W*, chocolate *C*, tobacco *T*. Odessa, Russia, is another important flour-milling center and Kiev is important for sugar refining (*B* at Dortmund and *W* at Torino).

ish, French, and Italian cars are produced in these same countries, mostly in the areas marked *A* on Fig. 111.

Locomotives are made chiefly in the great steel-producing districts of northern England and the Ruhr. They are made in England partly because of the ease with which they can be exported to overseas areas in which British capital has been invested. They are made in the Ruhr partly because of that region's convenience to a large continental market (Fig. 111).

Books.—The production of books is chiefly in the more advanced region, (Fig. 21), especially in the larger countries. Although there is

little illiteracy in several of the smaller countries from Netherlands to Finland and the per capita sale of books is large, the total sale is larger in Germany with its much larger population and its many expatriates in America. The advantages possessed by the publishers in Britain are even greater, as the public that reads English is at least three times as large as that which reads German (Figs. 111, 114).

Summary.—The chapter can be closed to advantage by a brief summary of the conditions favoring the great development of manufacturing in the so-called North Sea countries. This area is one of the world's most fortunate in respect to coal, density of an advanced population, healthfulness and skill of the people, facilities for transportation and communication, stability of government, and commercial activity. Because of the large population and its comparatively high material standard of expenditure, the local market for manufactures is far larger than anywhere else in the world, with the possible exception of the United States. Furthermore, from almost no other area is it so convenient to export the surplus, partly because no other area imports such abundant foodstuffs and raw materials. Of especial significance, however, in explaining the comparatively intense development of manufacturing, is the exceptional energy of the people. Whether this great energy is largely due to the stimulating climate or whether it is chiefly the result of the combined effects of a number of influences including that suggested by "nothing succeeds like success" it is not now possible to determine.

CHAPTER IX

THE COMMERCE OF EUROPE

Early Importance.—Europe has long been important commercially. In Egyptian tombs dating from the second millennium B. C. have been found numerous amber gems which good authorities declare must have come from the south shore of the Baltic Sea, the one important source of amber. By 1100 B. C., the Phoenicians made regular trips from their home in western Asia to the Iberian Peninsula for silver and lead and to Cornwall for tin. Shortly afterward, the Cretans carried on considerable commerce with the northern shores of the Black Sea. The ancient Greeks had an active trade, obtaining much of their wheat from what is now southern Russia. Even more important was their trade with westernmost Asia and northernmost Africa. The Romans extended trade relations still farther and obtained some goods from Persia and India. Their trade with northern Europe was much greater than that of the Greeks.

Some Effects of Trade.—The commercial activity of Europe was the basis for much exploration, because most early explorers were looking for easier routes for commerce. Columbus, da Gama, Magellan, and Hudson are examples. European commerce has also led to much settlement of other regions by Europeans. It has supplied other regions with European goods, ideas, and inventions, and has, in turn, enriched Europe by bringing back the products of many lands, and, occasionally, valuable ideas. Furthermore, it has served as a broadening training for many European citizens. Within the continent, the spread of early culture from the Mediterranean region, discussed in Chap. III, was partly a direct result of commercial relations, and commerce has continued to spread new ideas and inventions from one section of the continent to another.

MODERN GROWTH OF COMMERCE

Europe's commerce has grown rapidly in volume and value in recent centuries. In 1500 most of the commodities were of small bulk and high value, such as jewels, spices, silk, and precious metals. Now, although these costly items are carried in ever increasing amounts, they form only a trifling share of the total commerce, which is chiefly in bulky and relatively cheap substances. The main items are wheat, coal, lumber, iron ore, iron, steel, raw cotton, wool, petroleum, and manufactured cloth and machinery. Not only has the list changed, but it has been extended to include thousands of items instead of the scores carried a few centuries

ago. An illustration of how greatly commerce has grown in bulk is the fact that in a year all the seagoing ships in the world at the time of Columbus could not carry as much freight as can one of the larger ocean greyhounds of today. A further illustration of this growth in total commerce is the fact that the total value of the world's commerce is now about thirty-five times its value a century ago. The growth is shown, in round figures, for four leading nations and the world as a whole in Table IV and Figs 116, 122

TABLE IV — FOREIGN COMMERCE OF LEADING NATIONS
(Millions of dollars)

Year	Britain	Germany	United States	France	World
1800	325	175		130	1,500
1820	375	225	.	165	1,700
1840	575	250	200	300	2,790
1860	1,875	400	650	550	6,130
1880	3,500	1,450	1,550	1,450	14,760
1900	4,350	2,275	2,250	1,900	20,110
1913	6,472	5,365	4,530	2,953	40,420
1928	9,900	6,260	9,220	4,100	68,000

This great increase in commerce is related to the use of coal, to the discovery of cheap methods of making steel, to the invention of power-run machinery, to improvements in transportation including sending of power over electric wires, and to the use of labor-saving machinery in agriculture. As Europe made nearly all of these great inventions and discoveries, the commerce of other parts of the world has increased only slightly, except with European encouragement and assistance. Europe's commerce, on the contrary, has been multiplied many fold.

Spread of Commerce.—Much more than one-half of all the commerce of the world, aside from local trade, is carried on by Europe. Even the United States from 1910 to 1914 inclusive obtained just one-half of its imports from Europe and sent nearly two-thirds of its exports thither. From 1926 to 1929 Europe bought 47 per cent of our exports and sold us 30.5 per cent of our imports. Great Britain alone has for many years bought from two to six times as much from the United States as has all of South America and has sold us as much or more than all South America. Other nations illustrate the prominence of Europe in commerce quite as well as does the United States. For example, Brazil and Argentina receive more than one-half of their imports from Europe, Australia and India each nearly three-fourths and even Japan about one-third. Europe buys a large share of the exports of all parts of the world. For example, over four-fifths of the exports of Africa go to

Europe, three-fourths of those from Australia, and over one-half from North and South America. The character of the imports of six chief European nations from the United States is shown in Figs. 121, 122.

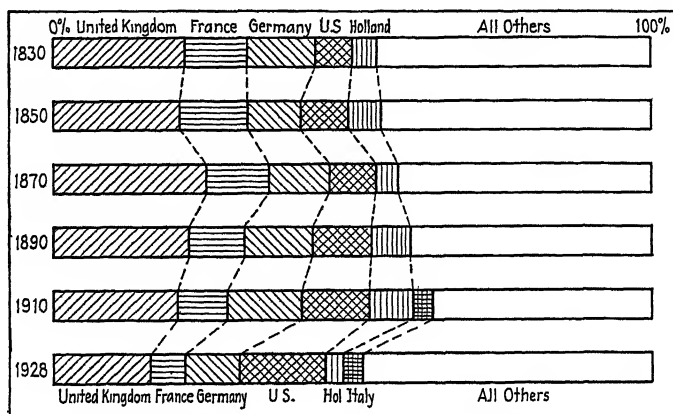


FIG. 116—Share of the leading nations in the world's foreign commerce in different years

As most of the world's commerce, aside from local trade, is carried on with the help of seagoing ships, it is interesting to note in this connection

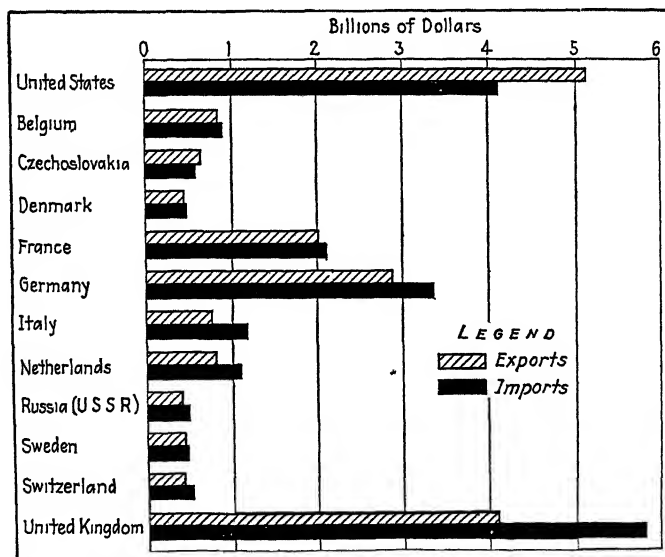


FIG. 117—Total foreign trade of leading countries, 1928.

that, in 1929, 71 per cent of all merchant tonnage was owned in Europe, distributed as to countries as shown in Fig. 75. The United States with 21 per cent of the world's total and Japan with 6 per cent are the

only non-European nations which have any appreciable share. Furthermore, of the new ships launched during 1925 to 1928, more than nine-tenths of the tonnage was European.

Commercial Regions.—Europe's trade with the world is divided among four sorts of regions: Those which are less advanced industrially than Europe and which therefore import Europe's manufactures and export products of the soil, forest, mine, or sea. Most of South America is a good illustration of this class. South America sends wheat, meat, skins, hides, wool, flaxseed, coffee, rubber, and minerals to Europe and buys all sorts of manufactured goods. Whereas Great Britain and Belgium produce less than one-half as much food as they use, Argentina and Canada produce from 25 to 50 per cent more than they require, and hence have a large surplus for export. On the other hand, these European countries export vast quantities of manufactured goods to Argentina and Canada. The annual value of goods exported from Britain and Belgium has averaged nearly \$100 per capita recently, $2\frac{1}{2}$ times the figure for the United States and 6 times the world average (Figs. 128, 191).

Source of Minerals.—The second great commercial type consists of regions possessing minerals which are in demand in Europe, such as copper, petroleum, silver, and tin. The United States and Mexico are rich in the first three, Canada in silver, nickel, mica, and asbestos, and the East Indies and Bolivia in tin. As Europe possesses none of these minerals in sufficient abundance and requires large quantities of each, these regions export them to Europe. In addition, South Africa sends gold, diamonds and chromite; North Africa sends copper, iron ore, and phosphate; and Asia sends manganese ore, tungsten, and antimony.

Warmer Regions—Regions possessing a warm climate and therefore able to produce plant and animal products which Europe cannot advantageously produce form another great type. Tropical regions have long contributed an important share of Europe's trade, chiefly because of this climatic difference. India and the Indies are examples. They send to Europe cane sugar, vegetable oils, copra, rubber, coffee, cacao, spices, cabinet woods, and tobacco (Figs. 18 to 20) and purchase from her cotton goods and other manufactures (Figs. 123, 124), as well as certain other products advantageously produced in Europe's climate, such as preserved fish and lumber. The cotton trade with the southern United States also depends in large part upon Europe's climate which makes cotton growing impractical (Fig. 122). Most of Europe is too cold to grow cotton, while the warmer southern peninsulas have a dry summer, whereas cotton needs much moisture as well as heat.

Other Specialties.—The fourth great type of region with which Europe trades extensively comprises countries which specialize in commodities that Europe might produce but for one reason or another does not produce

in sufficient quantities. A considerable share of the imports from the eastern United States are of this sort—automobiles, typewriters, phonographs, and so forth. The importation of silk from the Orient is of this class, as is also that of butter and cheese from Canada, Australia, and New Zealand. In 1928 Great Britain imported over 1,000,000,000 pounds of butter and cheese, valued at over \$320,000,000. Denmark furnished nearly one-half of the butter, the Netherlands one-seventh, and Russia, the Irish Free State, Finland, Sweden, and France together made up about one-fourth. Thus it is evident that butter is very largely produced in Europe, and that she could supply her own demands if it seemed sufficiently desirable. The same is true in respect to cheese and many other commodities which Europe imports.

Great Trade Routes.—The trade with these four great types of commercial regions follows four main trade routes (Fig. 1):

1. The North Atlantic route, with New York as the chief western terminal, and Liverpool, London, Anvers (Antwerp), Rotterdam, and Hamburg as the chief European ports.

2. The Suez trade route to India, the East Indies, China, Japan, and Australia. The more important eastern ports are Bombay, Calcutta, Singapore, Hongkong, Shanghai, Yokohama, and Sydney.

3. The South Atlantic route, with Rio de Janeiro, Montevideo, and Buenos Aires as chief western terminals. This route has grown rapidly in importance during the past few decades but still is third and is likely to remain so.

4. The American Mediterranean route, with Habana (Havana), Galveston, Tampico, Vera Cruz, and Colon as important western terminals. Ships plying between these ports and the North Sea regions commonly are induced by the saving in miles secured by following a great circle to continue northward along the eastern coast of the United States and hence join the North Atlantic route. The Panama Canal is diverting an increasing amount of the Oriental trade from the Suez route, as well as some from the South Atlantic route. Hence the North Atlantic route is surpassing its former rival, the Suez route, by an increasing margin.

Figure 189 shows the tonnage of the ships entering and leaving the more important ports. It indicates that 8 of the 11 chief ports are in Europe.

Importance of Trade with Near-by Nations.—Most of the foreign commerce of any European nation is with its neighbors. For example, at the outbreak of the World War, the commerce between Germany and Great Britain was greater than the commerce between either and any non-European nation except the United States, and this is still true, with the exception of the British trade with India. Europe is so diversified that each of the four great types of commercial regions is represented

Russia is an illustration of the industrially young nation. Until recently its exports have been chiefly products of the soil and forest, about 40 per cent cereals, 10 per cent timber, 8 per cent flax and hemp, 5 per cent

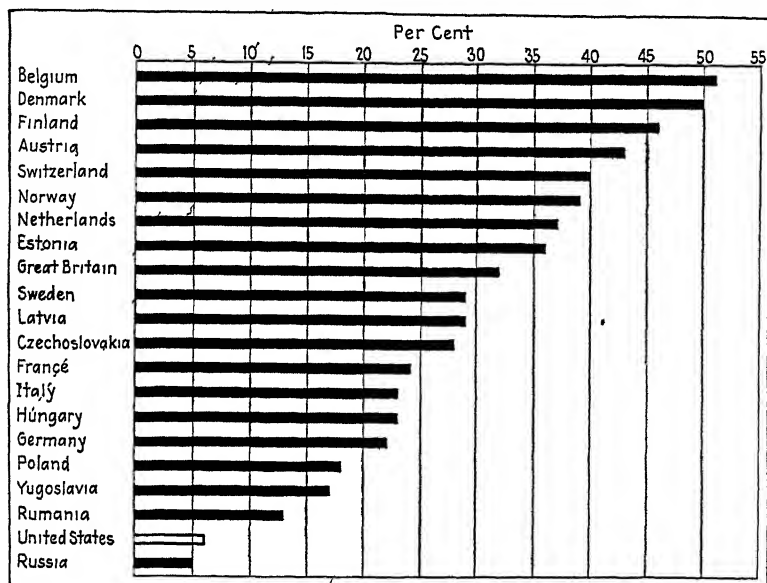
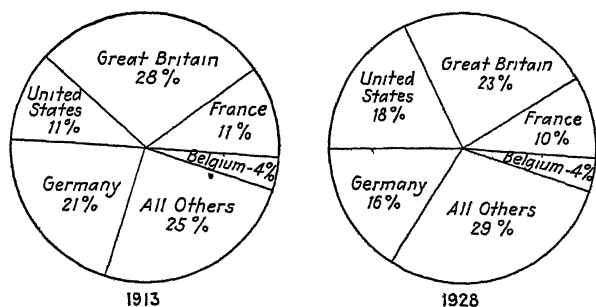


FIG 118—Percentage that all imported goods formed of all goods consumed in 1928.

eggs, and 4 per cent butter. Spain, northern Sweden, and Spitsbergen are examples of European sources of mineral wealth (Figs. 288 to 289). The vineyards and olive orchards of southern Europe yield products which cannot effectively be produced in the colder climate of industrial



FIGS. 119 and 120.—Exports of manufactured goods, percentages of world's total 1913, 1928.

northern Europe. Finally, much of the commerce between Britain, Germany, and France is in products which each can produce, but which because of conservatism and other reasons, the other nation has specialized in. German dyestuffs and chemicals are examples, as are French

silks and works of art, and British cottons, woollens, ships, and mechanical and electrical devices. The importation of such specialties causes manufactured goods to form an astonishingly large proportion, one-fifth more or less, of the imports of countries which are themselves great manufacturers (Figs 119, 120)

As a result of this extensive trade with neighbors, somewhat more than one-half of Europe's imports come from European countries and about two-thirds of the exports find their market within Europe. In contrast Asia supplies only about one-twelfth of the imports and takes only about one-eleventh of the exports.

Conditions Favoring Commerce.—Trade with neighboring countries is facilitated by several conditions discussed in previous chapters, particularly those dealing with relief and transportation. Of especial importance is the fact that so much of Europe is a low productive plain from which access to the sea is exceptionally easy and upon which railroads can readily be constructed, while the rivers are peculiarly useful (see the

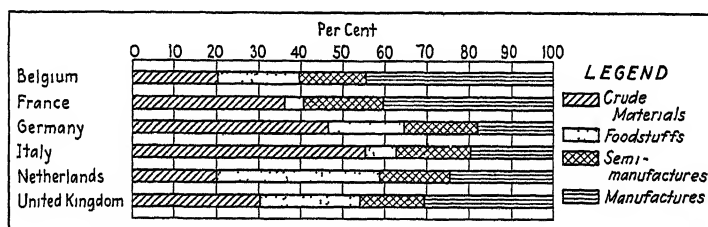


FIG 121 —Imports from the United States, 1929, by types.

physiographic diagram) Of great importance also is the fact that the mountains form much less serious barriers than in most continents, not only because of the presence of gaps and low passes but also because of their trend. Since a large share of the world's commerce, including domestic as well as foreign, flows in an east-west direction, the roughly east-west trend of the loftier chains, the Pyrenees, Alps, Carpathians, and Caucasus, is fortunate, as is also the east-west trend of the western part of the chief plain and of the Mediterranean Sea. The north-south trend of the mountain chains and plains of the United States is so obviously less favorable for both domestic and foreign commerce that Europe's comparative advantage in the trend of its two major features of relief, as well as in the trend of the Mediterranean Sea, should be readily apparent.

Excess of Imports.—A special phase of the commerce of parts of Europe has often been misunderstood. It is the fact that Great Britain in particular, but Netherlands, France, Belgium, Germany, and several other nations to a lesser degree, normally import more than they export (see Table V).

TABLE V.—FOREIGN TRADE OF CHIEF EUROPEAN NATIONS
(Millions of dollars, and percentage of world's total)

Country	Year	Imports	Per cent	Exports	Per cent	Excess of imports	Per cent excess is of total imports
Austria	1928	450	1 3	330	1 2	120	26 6
Baltic States	1928	130	0 4	110	0 3	20	15 4
Belgium	1913	891	4 8	695	2 9	196	22 2
	1928	900	2 6	850	2 6	50	5 5
Bulgaria	1928	50	0 1	48	0 1	2	4 0
Czechoslovakia	1928	600	1 7	650	2 0	50	8 3
Denmark	1913	231	1 1	195	1 0	36	15 6
	1928	400	1 4	450	1 4	10	2 5
Finland	1928	200	0 6	160	0 5	40	20 0
France	1913	1,625	7 6	1,328	6 6	297	18 3
	1928	2,500	6 5	2,500	6 7	0	0 0
Germany	1913	2,773	14 0	2,592	13 0	181	6 5
	1928	3,500	10 0	3,000	9 0	500	14 3
Great Britain	1913	3,741	18 5	3,089	15 4	652	17 4
	1929	6,110	17 0	4,200	13 0	1,900	31 1
Greece	1913	23	0 1	22	0 1	1	4 0
	1928	170	0 5	85	0 3	85	50 0
Italy	1913	703	3 5	484	2 4	219	31 0
	1928	1,200	3 3	800	2 6	400	33 3
Netherlands	1913	1,575	7 6	1,239	6 2	336	21 5
	1928	1,100	3 2	830	2 5	270	24 5
Norway	1913	148	0 7	105	0 5	43	29 0
	1928	260	0 8	190	0 6	70	26 9
Poland	1928	385	1 0	285	0 9	100	28 0
Portugal	1913	119	0 6	61	0 3	58	48 5
	1928	140	0 4	38	0 1	102	73 8
Rumania	1913	115	0 6	130	0 7	-15	13 0
	1928	210	0 6	180	0 5	30	14 3
Russia	1913	708	3 4	783	3 6	-75	10 6
	1929	420	1 3	370	1 3	50	11 8
Spain	1913	235	1 1	190	1 0	45	19 0
	1928	600	1 7	440	1 3	160	26 6
Sweden	1913	227	1 1	219	1 1	8	3 5
	1928	480	1 3	440	1 3	40	8 4
Switzerland	1913	371	1 8	266	1 3	105	28 0
	1928	503	1 5	402	1 3	101	20 0
Yugoslavia	1928	144	0 4	120	0 4	24	16 6

An excess of imports over exports gives rise to what is often called "an unfavorable balance of trade." A nation, such as Russia or the United States, which exports more than it imports is spoken of as having "a favorable balance of trade." The misconception illustrated by the

words "favorable" and "unfavorable" has been so great that many legislators have endeavored to discourage importation and to encourage exportation. The fact is that "an unfavorable balance of trade" in the case of these European nations is a proof of their financial strength

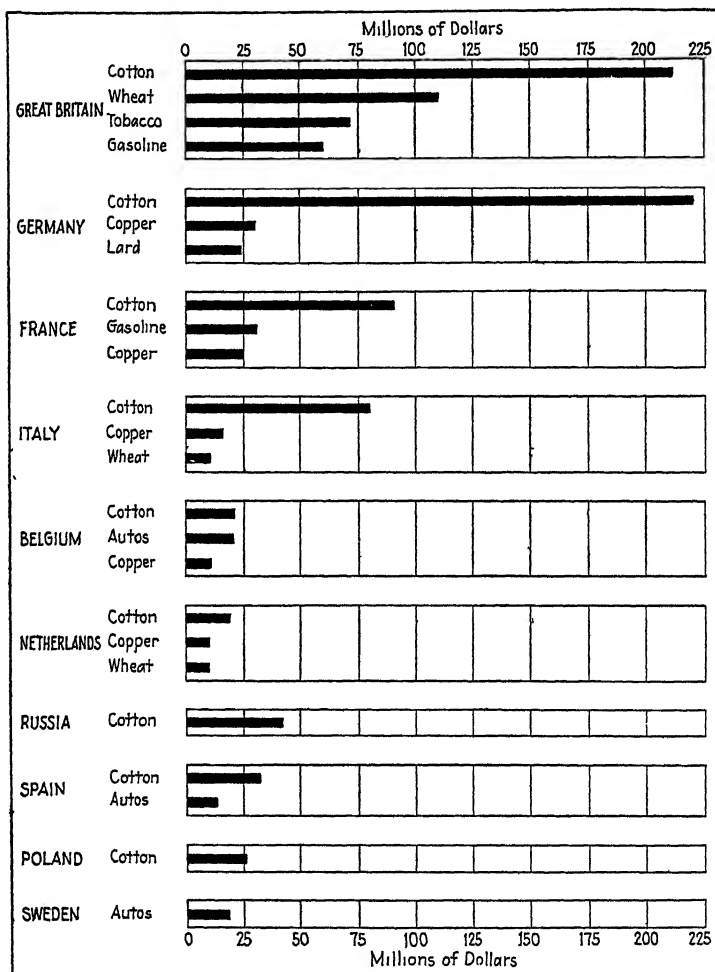


FIG 122—Chief exports from the United States to specified European countries, 1928, raw cotton is the chief export from the United States into Austria and Czechoslovakia (about \$12,000,000 each)

instead of the reverse. Great Britain, for instance, is able to import \$1,000,000,000 worth a year more than she exports because the interest on her investments abroad and the earnings of her merchant marine are nearly \$1,000,000,000 a year more than the interest on British securities held abroad. Furthermore, travelers in Britain, retired colonial officers,

and colonial business men spend much money in Britain which was earned abroad. Thus there is a constant flow of wealth toward Britain (Figs 125, 145). Among the less wealthy nations an excess of imports over exports sometimes means that they are going into debt, and hence that they, of course, will have to pay interest and later return the capital. If they are going into debt for improvements, such as railroads, which

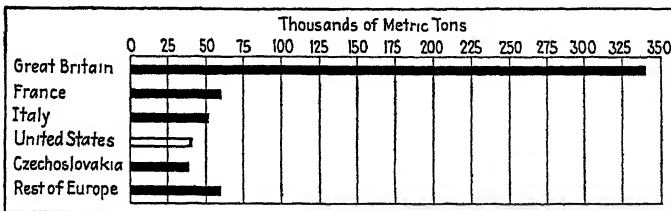


FIG. 123 — Cotton piece goods, excess of exports, average 1925 to 1928. India and China each imported about one-third of the world's export.

will facilitate their development, however, it is much more desirable to borrow than to get along without the railway. But where the nation is wealthy and the people hold many foreign securities, the situation is even more obviously a good sign.

Reasons for Savings.—The northwestern portion of Europe has long been the only area, aside from a small part of the United States, that has had much capital to spare (Figs 138, 139, 140). Why has this small region, perhaps 1 per cent of the land of the earth, had capital to spare,

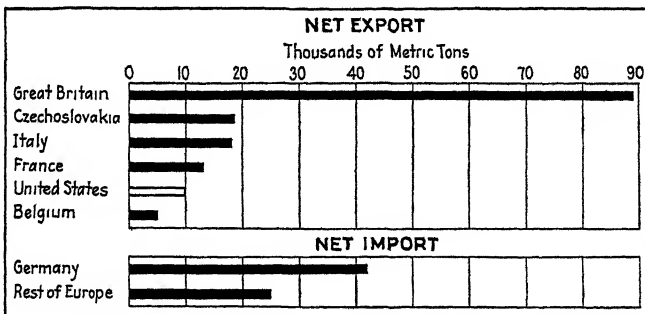


FIG. 124 — Cotton yarns, excess of exports or imports, average 1925 to 1928.

while the other 99 per cent has had insufficient capital with which to build railroads, improve harbors, or carry on other costly developments? The people of that part of Europe are energetic and also thrifty. They earn much and they save much, and hence have much to spare. On the other hand, the people of most of the world earn only a little more than is necessary to keep themselves alive. If exceptionally favorable weather conditions or other fortunate conditions cause their crops to be exception-

ally large they are likely to spend the excess extravagantly, for example, in giving feasts.

Reexportation.—Another less important special phase of the commerce of Europe is the large amount of reexportation. Many nations, particularly Britain, Netherlands, and France, import much from their colonies and from other parts of the world and reexport it. For instance, England both imports and exports much raw wool, tin, tea, rubber, and

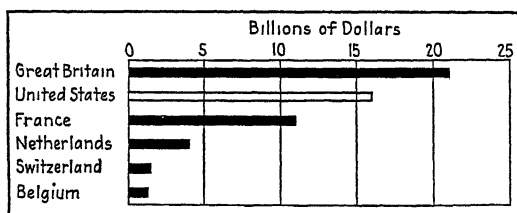
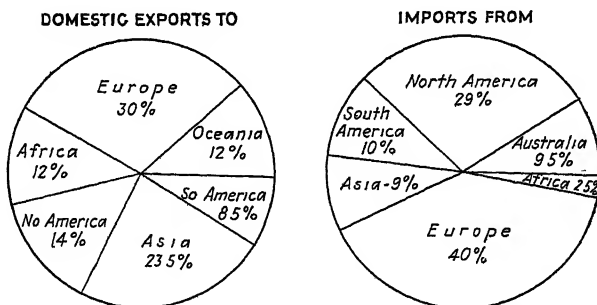


FIG. 125 —Foreign investments, 1928, approximate amount in excess of those owned by foreigners in the country shown

raw cotton. About one-fifth of Britain's exports are reexports and their value exceeds the total value of the exports of such nations as Russia, Belgium, and Italy. Netherlands repacks and then exports a considerable share of the cacao, rubber, spices, etc., received from her East Indian possessions and neighboring regions. Also many German, Swiss, Czechoslovakian, and Austrian imports and exports pass through Belgium or Netherlands. If they also pass through the hands of Belgian or Dutch business men they are likely to be counted in both the imports



FIGS. 126 and 127 —British foreign commerce, 1928

and the exports of those lands, although not among "domestic exports" and "imports for consumption," the items used in making Figs. 190, 191.

BRITISH COMMERCE

After these remarks upon European commerce in general it will be well to consider the commerce of Great Britain, the chief commercial

nation, in greater detail Britain trades with the entire world. Table VI and Figs 126 to 134 illustrate this.

TABLE VI—BRITISH EXPORTS AND IMPORTS, 1928
(Millions of dollars)

Country	Exports to	Imports from	Country	Exports to	Imports from
Argentina	155	374	Italy	80	77
Australia and New Zealand	380	495	Japan	72	43
Belgium	133	211	Netherlands	130	209
Canada	180	228	Norway	41	58
China	104	61	Russia	32	105
Denmark	55	258	South Africa	205	155
East Indies	91	90	Spain	52	89
Egypt	55	128	Sweden	53	108
France	213	295	Switzerland	44	70
Germany	328	310	United States	335	918
India	444	381	Other countries	710	1,140
Irish Free State	218	220			
			Total	4,110	5,825

Nearly half of Britain's exports go to other parts of the British Empire (Fig 130) and about one-third of the imports come from them. The imports have a per capita value of about \$130 and the exports of about \$90. Britain purchases about \$1,000,000,000 worth of commodities from the United States (1926 to 1929) and sells us about one-fourth as much (Figs. 132, 133). The countries supplying the largest percentages of the imports and purchasing most exports are shown in Figs. 129, 130

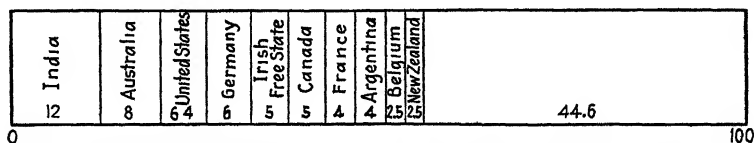


FIG 128—British exports, 1928, share received by specified countries, percentages of total.

which also show the changes in the relative importance of these countries since 1870

Exports.—Great Britain's export trade has grown rapidly, as is shown by Table IV, and has become diversified to a marked degree. Whereas in 1800 her exports were almost wholly textiles, by 1890 textiles formed 60 per cent, in 1913, 36 per cent, and in 1928 only 32 per cent. On the other hand, in 1890 steel and its manufactures made up one-ninth while in 1913 and in 1928 the same group made up about one-fourth of the exports. Coal likewise increased from about 4 per cent in 1870 to nearly

10 per cent for the decade before the World War, but in recent years it has declined to about 6 per cent. The countries receiving most coal in 1928 are shown in Fig. 159. Although about two-thirds of the British exports fall into three main groups, textiles, steel and other metal manufactures, and coal, there is a long list of products. Indeed the British are conspicu-

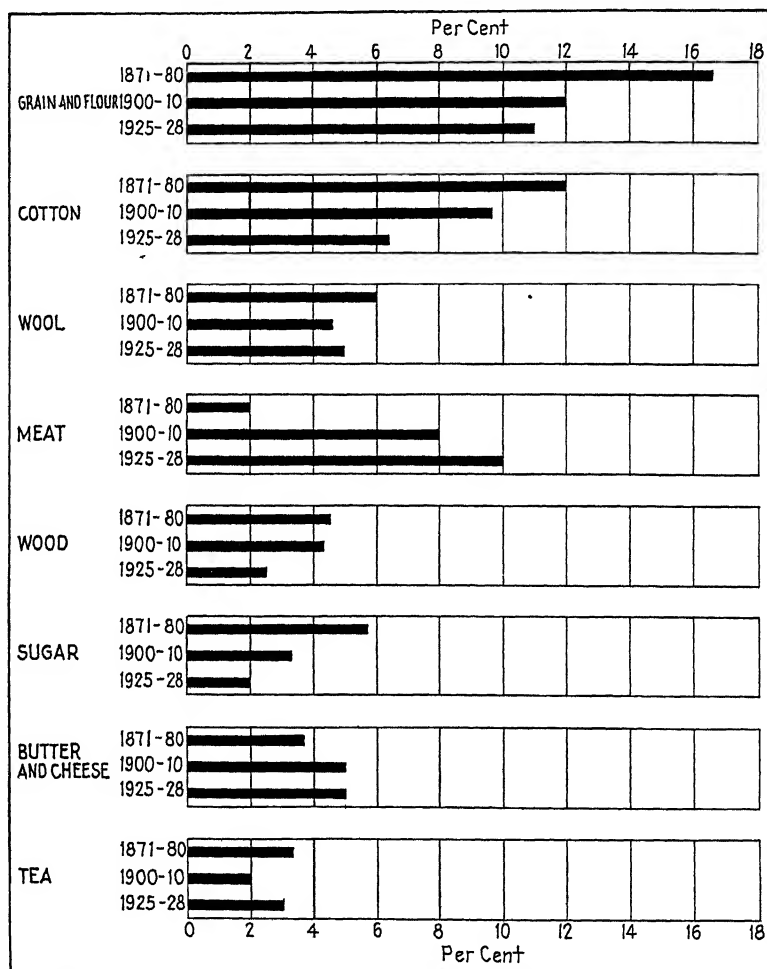


FIG 129 — Chief British imports by groups, percentages of total imports in various periods

ous for supplying the needs of any group of people able to purchase commodities. Not only are numerous strange items manufactured for export, for example, flintlock rifles and even flint arrow points, but numerous commodities are imported from wherever available and reexported. The value of the reexports is more than the entire export of any nation except the dozen with most exports.

Figures 132, 133 give the more important items exported to or imported from the United States in 1928

The trade with South America illustrates the diversity of the exports also (Fig 134) Despite the facts that Great Britain has no political

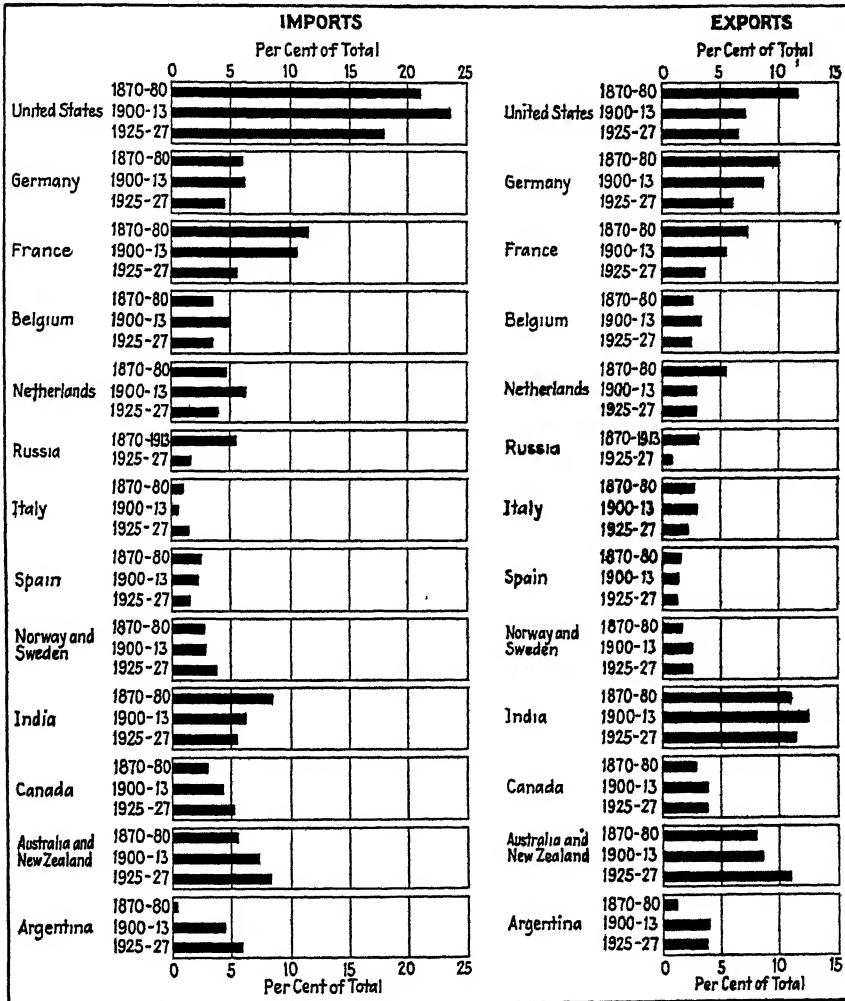


FIG. 130—British foreign trade; countries supplying imports and taking exports, at different periods

advantage there, and little or no advantage of proximity, and that several strong nations are actively competing in the trade, Great Britain has supplied a larger share of South American imports than has any other nation. The proximity of the United States, however, and the frequent

boat service afforded by the banana-carrying steamers have caused that country to surpass Britain in the northern countries.

The variety of the British exports to South America, and the average value of each of the 23 items of which more than \$1,000,000 dollars worth are exported are shown in Fig 134. The following additional items each had a prewar value of over \$500,000; cotton yarn, copper manufactures, wood manufactures, spirits, rubber goods, glass, paper, brass goods, cutlery, silk goods. In addition several items, such as hats, oilseeds, drugs, candles, oilcloth, and soap, were valued at \$200,000 to \$400,000.

Imports.—Although a considerable share of England consists of choice agricultural land, the great increase in population following the industrial revolution led to a demand for food greater than could readily be supplied locally. At first agriculture was stimulated by laws restricting the importation of grain, and, until 1856 when they were repealed, most of the wheat was home grown. Under free importation, however, the per-

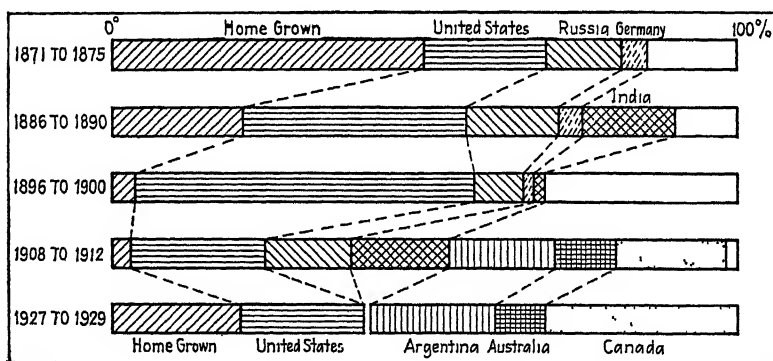


Fig 131 —Sources of wheat used in Great Britain, 1871 to 1929.

centage grown at home declined to an average of only about 5 per cent from 1896 to the World War. Indeed at the outbreak of the war Britain imported four-fifths of her food, according to J Russell Smith. The submarines led to a great expansion in agriculture and since then home-grown wheat has formed about 20 per cent of the wheat consumed. Wheat is grown extensively partly because the yield per acre is exceptionally large and regular. The chief sources of imported wheat and the fraction they made of the total wheat consumption at various periods are shown in Fig. 131. Foodstuffs comprised about 44 per cent of the total value of imports in recent years in contrast to about 40 per cent in 1913. The sources of meat, now an import of considerable value, are shown in Fig. 155.

The textile raw materials are imports of major significance. Raw cotton has made up about 10 per cent of the total value of imports during

the past 60 years, wool about 5 or 6 per cent, and flax and jute together about 2 per cent. Britain has been surpassed only by the United States in the amount of cotton and wool consumed, except that in 1927 France consumed slightly more wool. The British have been very active in promoting the widespread production of cotton and wool. They have succeeded well with respect to the wool, nearly 45 per cent of which comes from the British Empire, especially from Australia and South Africa (Figs. 46 to 48). With cotton, however, their efforts have been far less successful, and the United States still supplies about three-fourths of the import, followed by Egypt and India.

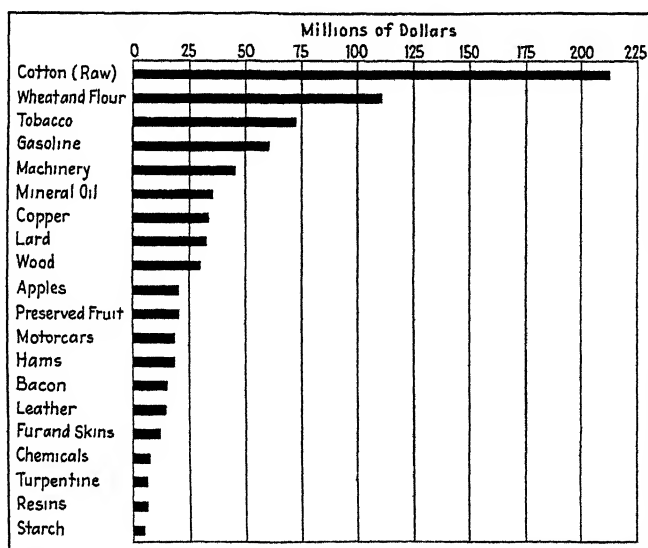


FIG. 132—Great Britain's chief imports from the United States, average of 1927 and 1928.

Basis of Trade.—British commerce rests upon three broad bases. The first is the energy, initiative, inventiveness, and ambition of the British people. The second is the coal and other natural resources of Britain. The third is the excellent world market for British goods. The character of the people depends partly upon several geographical conditions—the favorable, stimulating climate, the highly significant, complex results of insularity, and the advantageous location for trade with the rest of the world. The coal is important because it is effectively used to run factories, trains, and ships, and because it also forms an important export—a return cargo for ships which have come loaded with grain, lumber, ore, and other bulky imports (Fig. 71). The third great basis of British trade, the excellent world market for British goods, depends partly on the friendly attitude of many foreigners toward

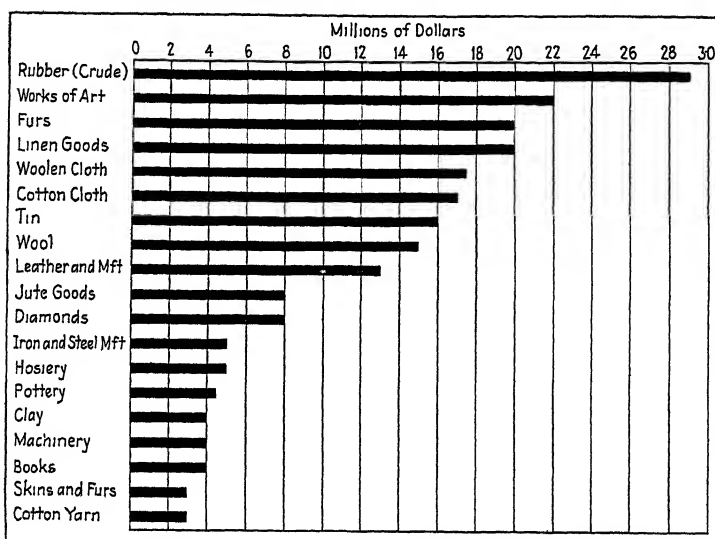


FIG. 133.—Great Britain's chief exports to the United States, average of 1927 and 1928

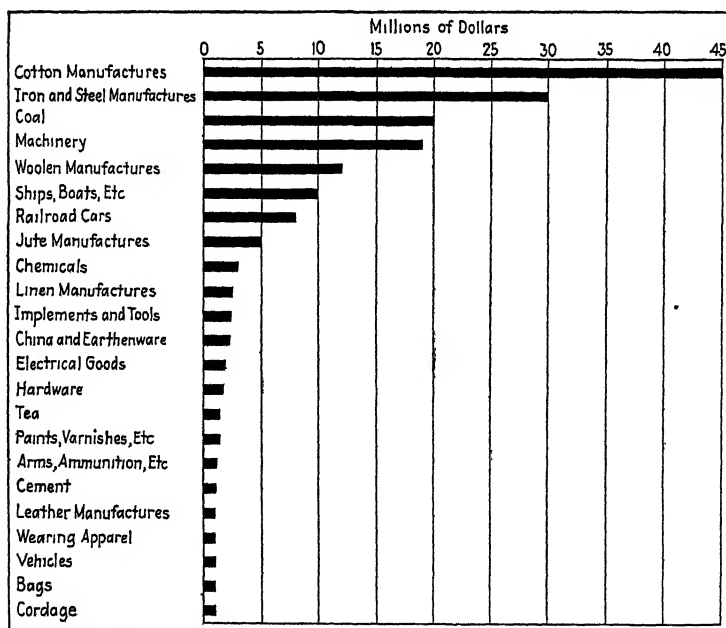


FIG. 134.—Principal British exports to South America, average annual values 1906 to 1910 in millions of dollars

British goods This attitude in many areas is fostered by racial kinship or by identity of language. Emigrants from Britain and the descendants of emigrants are found in relatively large numbers in all lands, and English is spoken by more commercially active people than any other language. The friendly attitude toward British exports depends in part on the dependably high quality of the goods. Indeed most British exports are the standard of excellence in their respective lines. British trade has been increased also by the large foreign investments of British capital, which commonly stimulate the use of British goods. For example, when British capitalists have invested a large sum in an Argentina railway, the money is largely used to buy rails, locomotives, and cars from British manufacturers. Furthermore, when the dividends are paid, they commonly take the form of Argentina wheat, meat, wool, and other products.

Another condition favoring British foreign trade is that the financial transactions are facilitated by the numerous foreign branches of strong British banks. Furthermore, the British pound sterling has long been the world's standard medium of exchange.

CHAPTER X

POLITICAL GEOGRAPHY OF EUROPE

Importance of Political Affiliation.—The economic development of the various parts of Europe depends only in part upon the local geographic conditions. In most instances it has been profoundly affected by political affiliations, as is shown by the fact that the use made of the mineral resources, forests, and soils has sometimes varied sharply with changes in political control. Governmental encouragement by protective tariffs (Fig. 135), bonuses, and special railroad rates or by nationally supported geological surveys and departments of agriculture and forestry have all played important roles in determining Europe's use of the land, and so have policies of land settlement. In other words, the economic development has often depended on conditions which are not geographic in the local sense. Human factors, particularly the historical ones, have been especially significant. Nevertheless, since the historical factors have been conditioned throughout by geographic influences, it is more correct to say that many phases of the local development depend largely upon geographic conditions elsewhere.

Hence not only is a consideration of the existing political entities of Europe essential in a discussion of the economic geography but a study of the geographic influences which have affected their development is appropriate and desirable.

Numerous Political Units in Europe.—Europe contains 34 nations if Andorra, Liechtenstein, Luxembourg, and Monaco are counted. Many of the larger nations include subdivisions that are independent in some respects, for example, Scotland, Serbia, Corse (Corsica), and Bayern (Bavaria). Each of the numerous Soviet republics which comprise Russia have also considerable independence, Ukraine in particular.

In contrast to these numerous political units in Europe, the rest of the world is divided into scarcely more independent nations than is Europe. Africa has 4, South America, North America, and Asia, each about 10, and Australasia 2, a total of about 36. But several of these, such as Egypt and the Central American republics are so closely controlled by Great Britain or the United States as to be scarcely independent.

The multiplicity of political units in Europe reflects the presence of numerous areas which were somewhat isolated before the modern period of ready communication and transportation. In several instances these areas are separated by the sea, in many others by sea and moun-

tains, and in the remaining instances largely by tracts which remained sparsely settled because they were rugged, marshy, sandy, dry, or otherwise unfavorable for close settlement. The islands, too, tend to be independent or semi-independent, as in the case of Great Britain, Ireland, Iceland, Kritt (Crete), Corse (Corsica), Sardegna (Sardinia) and Sicilia (Sicily).

Three peninsulas are largely occupied by single independent nations, Jutland, Italy, and Greece. Three others have two or more nations, Scandinavia, Iberia, and the Balkan Peninsula. Two other peninsulas Krim (Crimea) and Brittany have long contained distinct political units although no longer independent.

The Coast as a Boundary.—The sea has been of profound significance in setting off certain countries in addition to the islands and peninsulas already mentioned. For example, Finland and Estonia are separated by the Gulf of Finland, Estonia and Lithuania partly by the Gulf of Riga, and East Prussia and Poland partly by the Gulf of Danzig.

The coast is much more important as a delimiting agent than as an isolating one. Roughly measured, the marine boundaries were, in 1914, $2\frac{1}{4}$ times as long as the land ones. The creation of the several interior nations since 1914 has reduced the ratio, but still the sea is the major type of boundary. Yet to a nation which is particularly active, the sea offers an ineffectual barrier. For example Denmark and Norway, though separated by water, were connected politically much longer than Norway and Sweden. Venice held the Dalmatian Coast against the Turks, and England still holds the Channel Islands off the coast of France.

Mountain Boundaries.—Next after seas in efficacy as isolating barriers come mountains, distinctly shown in the physiographic diagram in the pocket. The Pyrenees have rather effectively cut off Iberia from France and have formed an international boundary during most of modern times. The Alps have formed the northern boundary of Italy or of its predecessors as far back as the days of ancient Rome, except for short periods. In modern times they have also formed part of the southern boundary of Germany. The Juras separate the Swiss plateau from the French plain and have long served as a large part of the boundary between France and Switzerland. Another chain of persistent significance as an economic barrier is the Kjolen Range which partly separates Norway and Sweden. Its effectiveness as a barrier is increased by the fact that it is also a climatic barrier. On its western slopes the rainfall is heavy and the winter temperatures are kept mild by the winds from the adjacent Atlantic, while its eastern slopes receive little precipitation and have very much colder winter temperatures. The Carpathian Mountains, with their southern extension, the Transylvanian Alps, have served as political boundaries for considerable periods. Similarly

Bohemia, surrounded on three sides by low ranges, has had a considerable degree of economic independence and political individuality.

Mountain ranges however, have exerted quite varying degrees of influence. Now that airplanes are numerous and long railroad tunnels are dug wherever economically justified, mountains are much less effective economic barriers than they were a short time ago. But at a still earlier period, when all travel was very slow, steep slopes were less of a barrier than when railroads first came but before numerous and long tunnels could be afforded.

In medieval times mountain ranges frequently failed to be political boundaries, for people inured to the poverty-stricken life of mountains tend to develop small nations which hold both sides of the range. Andorra, Montenegro, and, in less degree, Switzerland are late survivals of this condition. Similarly, the Pyrenees, one of the most effective commercial barriers, seldom served as a political boundary before the eleventh century.

Inland Waters as Boundaries.—*Lakes and swamps* are effective local economic barriers and frequently form sections of political boundaries. The eastern border of the Netherlands, stable for the last 400 years, is perhaps the best example of a marsh boundary. The southern part of the boundary between Norway and Sweden is also in a region of numerous glacial lakes and marshes and a sparse population. The eastern boundary of Estonia is mostly formed by Lake Peipus, and the southeastern boundary of Finland by Lake Ladoga. Parts of the boundary of Switzerland are also formed by lakes Geneva and Bodensee (Constance). Poland is somewhat separated from Russia for a considerable distance by the extensive Pinsk marshes. Furthermore, many of the states of feudal Germany were partly delimited by marshes. Swamps were far more serious barriers in the past than today, however, for now they are often crossed by railroads and roads on embankments, if indeed they have not been completely drained.

Rivers have been frequently used locally as boundaries, but they seldom have served long. The lower Danube has been frequently a boundary, partly because it expands below Serbia into a belt of channels and marshes 10 miles wide and is a really formidable obstacle to travel. Yet even here the Rumanian speech prevails on both sides. The Dnestr (Dniester) has long served as a boundary between Bessarabia and Ukraine, the upper Rhine between Germany and France, and the lower Guadiana between Spain and Portugal. Most rivers instead of separating regions tend to unite them, however, and in several parts of Europe they have displayed this role to a striking degree. Silesia, for example, is rather distinctly the valley of the upper Oder, and Bavaria of the upper Danube. Many Germans also contend that the Rhine Valley is a unit, and that the Rhine River is not the boundary of Germany.

Climatic Boundaries.—Climatic contrasts have played a part in separating the countries of Europe. The ancient Greek colonies were restricted to places having the Mediterranean type of climate. The Roman Empire spread for short periods beyond this climatic province, but its real conquests were almost confined to it, Rumania, northern France, and Britain forming the chief exceptions. Russia, since the revolution of 1917, has lost the western parts of the czars' empire, the parts where the influence of west winds from the open ocean made the climate less strongly continental than in the great bulk of the realm. The climatic contrasts between Sweden and Norway have already been mentioned. Another instance where climate plays a part is in separating Portugal from Spain. Most of the people of Portugal live in a climate sufficiently less arid and less extreme than that of most of Spain, including the dominant parts, that there is a strong tendency to take different attitudes and be uncongenial. Furthermore, much of the land along the boundary is sparsely peopled, as it is unattractive to the Portuguese partly because of its different climate.

Human Differences. *Language.*—Differences in language have been, and remain, a great barrier to trade. They tend to produce isolation and to retard the full development of resources. Next to the physical features already discussed, language appears to have been the most important factor affecting the location of European boundaries. Nations tend to expand politically to include those who speak the mother tongue, and if no neighboring nation speaking the language exists, a new one may be established, as was done in the case of Latvia. Such people are commonly assumed to be racially of the same stock as their conquerors, but it is now known that often this is not so. Peoples quite unrelated in race often speak the same language, while members of the same racial group speak different languages. Of the latter type the many dialects or vernacular form the most numerous examples. Many of these are known only locally and are not written, yet they form the everyday speech of the multitude. It is the cultural language, the one that is written and used by the educated classes, that counts most, not the everyday speech of the great mass of the people. As the importance of reading and writing is increasing rapidly, it seems inevitable that the vernaculars and minor languages will gradually disappear. In the not distant future instead of the several scores of dialects now in use it is probable that nearly all of the people of Europe will use one or more of a few major cultural languages, English, French, German, Russian, Italian, Spanish, and possibly one or two others. If so, one of the chief bases for the independence of the eight new nations recently established will be removed.

Cultural Influence.—Perhaps the most powerful of all cultural influences since 1700 in the making of nations has been nationalism. With its aid the medieval swarm of petty sovereignties were welded into

nations. Nationalism has almost always aimed to unite as a nation the territory in which a distinctive language is used or has been used (as in Ireland). As the vernaculars gradually become less significant, nationalism should decrease, being superseded by a wider view, not cosmopolitan in scope but trending that way. Under it, the question will be not, Do the people of this other area speak my language? but, rather, Can we by cooperating and exchanging goods and ideas both live on a higher plane than at present?

Dynastic and militaristic influences, though often affecting the boundaries of countries in the past, have seldom led to the creation of permanent boundaries. For example, the areas welded together by Napoleon soon fell apart, and areas united by the marriage of rulers and of their heirs have only for short periods held together, unless in accord with geographic principles.

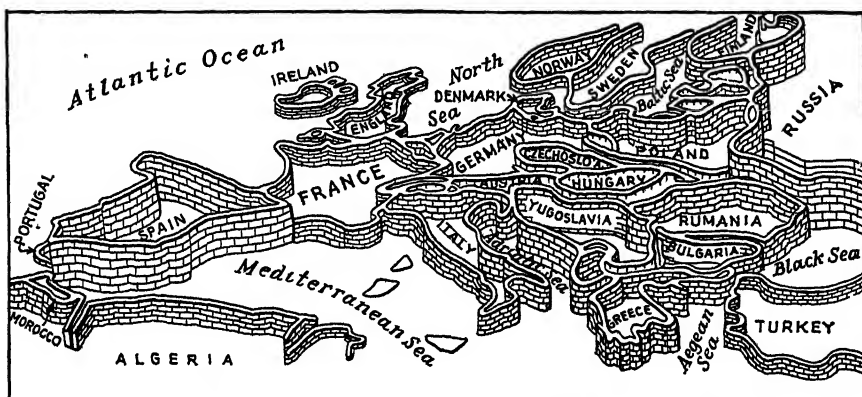


FIG. 135—Relative height of the tariff walls (From A. P. Denme, *Saturday Evening Post*, 1927, by permission)

Race seems to have had almost no influence on boundaries in Europe. The Highland and Lowland Scotch are of distinctly different race, yet joined hands centuries ago. Likewise the Magyars have always allied themselves with the Teutons. Within France the three great subraces of Europe, the Mediterranean, Alpine, and Nordic, are well represented but do not prevent a close national union. In Germany also the South German is of the Alpine subrace and the North German of the Nordic. And in most of the European countries the Jew is an influential element politically, economically, and educationally, often becoming an integral part of the nation.

Generalizations as to Extent of Growth.—In addition to the tendency for nations to expand until they come to sufficient physical barriers or to a stronger, more advanced people, three other generalizations may be made. First, islands are conquered and held by adjacent nations on the

mainland. Great Britain forms a partial exception, for although conquered by the Normans in 1066, it has long been independent of France. The geographic reason why islands are seldom completely independent appears to be that their resources are commonly fewer and their social and economic conditions simpler than on continents. Thus they tend to be less advanced than the mainland and less powerful. This is conspicuously true as to Sicilia(Sicily) and especially as to Sardegna(Sardinia) as compared with peninsular Italy, of Corse(Corsica) as compared with the rest of France, of the Balearic Islands, as compared with Spain, and of the numerous Greek islands as compared with continental Greece. The British Isles were also relatively backward at the time of the Norman Conquest, but a fortunate combination of resources and circumstances has enabled Great Britain to take leadership. In the British Isles the dominance of the main island over Ireland and the Shetlands, Hebrides, and Orkneys suggests, as do the greater resources and progress of the larger island, that it approaches the continent in these respects.

The Larger Nations Tend to Expand.—The second generalization as to the growth of European nations is that the larger ones tend to grow at the expense of the smaller. Instead of the thirty nations of today there were many more formerly. Twenty-nine principalities were united in 1860 to 1871 to form Germany. Nine were united in 1859 to 1866 to form most of modern Italy, a score to form Switzerland, a dozen to form Spain, and several to form modern France. To be sure, as a result of the World War, the number of states in Europe was increased by the partition of Austria-Hungary and Russia, but this is presumably merely a temporary partial reversion to the antiquated policy of political isolation.

Increased Strength.—The surviving European nations have not only become larger in area and population but they have become much stronger economically, educationally, and commercially. At various times in the past considerable areas of Europe were for a time nominally united politically, for example the Napoleonic Empire, the Holy Roman Empire, and the kingdoms of Poland, of the Franks, of Charlemagne, etc. But most of these principalities were not truly nations and had little lasting influence on the life of the great majority of their people. Gradually, however, the nations have come increasingly to protect life and property, improve transportation facilities and trade, and more recently also to augment popular education in numerous ways, to improve health, and increase the utilization of natural and human resources.

The effectiveness of a government in aiding its people is moreover not a function of size. The largest nations have often been of less service in the significant ways just enumerated than have some of the smaller ones. This is partly because there is a strong tendency for the larger

nations to become militaristic and to devote much of the taxes to maintaining an expensive military machine. Then they go to war, to the detriment of most of the people. In contrast, the smaller nations, such as the Netherlands, the three Scandinavian nations, Belgium, and Switzerland have been discouraged by their comparatively small number of available soldiers from spending much on armaments. Instead they

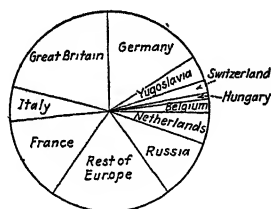


FIG. 136—Estimated total wealth by countries, 1928, total, \$390,000,000,000.

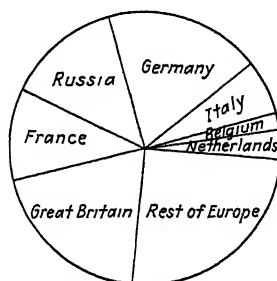


FIG. 137—Estimated total annual income by countries, 1928; total \$65,000,000,000.

have advanced popular education until illiteracy is much less than in their larger neighbors. They likewise have aided the economic welfare of the people in a thousand ways, with the result that their people are comparatively well off. So far as the individual is concerned, the comparative size of the nation to which he belongs is of much less significance than whether conditions are favorable for his life and work (Figs. 136 to 140). The prosperous smaller nations appear to realize this, while

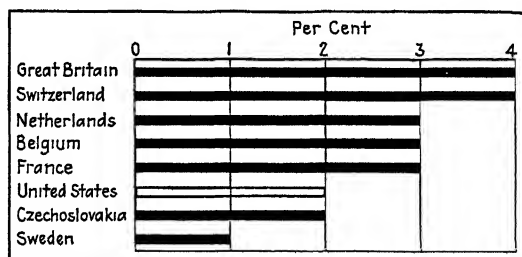


FIG. 138—Percentage of national income invested abroad in 1928.

many of the influential people of the larger nations still have the illusion that the larger the area of a country the better off it is. The illusion, that war benefits the winner, discussed so ably by Norman Angell in "The Great Illusion" has also been unfortunately prevalent.

Boundaries in Peace and War.—The war psychology affects conspicuously the attitude toward boundaries. The best kind of boundary in peace time is the one most readily crossed. Boundaries that are

barriers are only desirable in defensive warfare waged with either soldiers or tariffs. And as tariffs are now a major influence leading toward military war, boundaries across which goods can readily be smuggled tend toward a reduction of tariffs and hence toward peace.

Regional Contrasts in Democracy.—Another phase of the political geography of Europe which merits attention is the regional contrasts in democracy. As is well known, the countries bordering the North Sea rank highest in democracy, on the average, and there is a progressive decline in all directions therefrom, corresponding with the decline in health, productivity, and civilization. Russia and Turkey characteristically have been autocracies, most of the Balkan countries have been almost anarchies, and Iberia and Italy are far from being democracies. There is, however, one exception to the general decline in democracy with increasing distance from the North Sea, namely the mountain

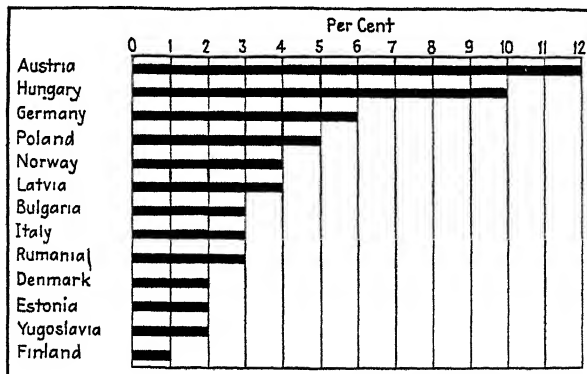


FIG 139.—Percentage of national income obtained by borrowing from abroad in 1928.

republics of Andorra, San Marino, and especially Switzerland. These show that in certain mountainous areas conditions favoring the development of democratic governments exist. But these conditions do not necessarily dominate, as is shown by the prevalence of semianarchy in the mountains of the Balkans and Sardegna (Sardinia).

EXPANSION OF THE LARGER NATIONS

Russia.—We will now turn to a brief discussion of the expansion of each of the larger European nations commencing with the largest (Fig 93). The expansion of Russia was influenced profoundly by five geographic conditions:

1. It had its inception in the western part of a great plain and has expanded to include most of it.

2 The spread was facilitated by the rivers that radiate from the Valdai Hills, near the early kingdom of the Moscovites. The people slowly spread out southward down the Dnepr (Dnieper) and Don, eastward and southeastward down the Volga, northwestward down the western Dvina, and later northward down the Dvina. The spread was gradual, beginning 1,000 years ago and is still continuing.

3. Except toward the west, the spreading Russians found the lands they entered sparsely populated with less advanced and weaker peoples, and hence they had no great difficulty in expanding.

4. To the west, however, not only was the land well occupied, but the people were not weaker; indeed, as climatic conditions improve toward the west, the people are distinctly more energetic and advanced. Hence,

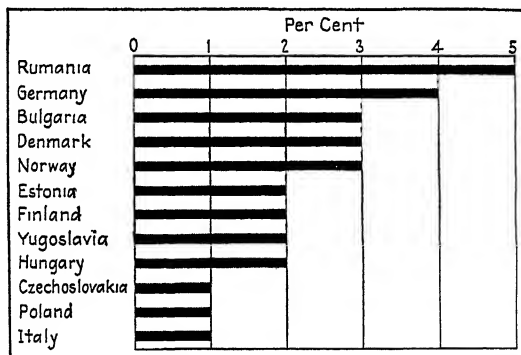


FIG. 140 —Percentage of national expenditures sent abroad in 1928 as interest and dividends or reparations (net, more than that received from abroad)

although the powerful czarist empire was able to expand slightly westward, since its downfall Finland, Estonia, Latvia, Lithuania, and Poland have become independent, and Bessarabia has been lost to Rumania (Fig 141).

5. The fact that Russia is essentially an interior land, with no free contact with the modern world of western Europe until the extensive building of railroads, telegraph lines, and the coming of the wireless and the airplane, has also been of profound significance in the expansion and development of Russia. One of the great objectives of the government has been to obtain an ice-free port so situated as to serve the country advantageously, even in time of war. This objective has led to a number of wars but has not yet been attained. The former cultural isolation has also retarded the development of natural resources, the rise of the cultural and economic standards of the people, and the influence that Russian leaders have had in other lands. The expansion into other lands of Russian ideas and ideals has, however, been appreciable in recent

decades, since Tolstoy and a few other men of genius have become widely known.

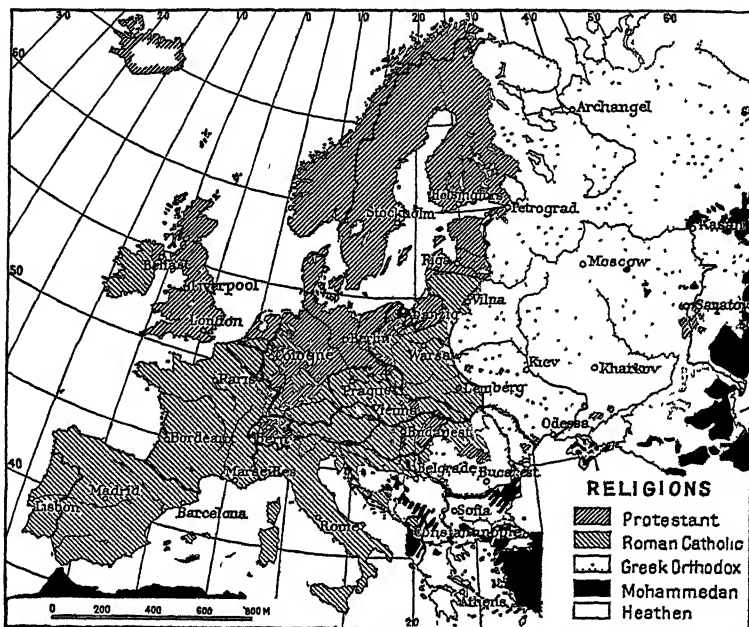


FIG 141 —Chief religions of Europe Note the religious differences between Russians and the people of the western border states that have broken away to form independent national units The creation of Poland adds a powerful unit to the Roman Catholic bloc (*Boundaries of religions after Debes, Handatlas From Bowman, The New World*)

France.—The expansion of France to include the region most clearly delimited by physical features required many centuries, especially at the north because the people there and in lands bordering thereto were energetic and advanced and withstood the French. The Pyrenees afford such a distinct barrier that there is no modern tendency to expand into Spain, despite the lesser strength of the people there. The Alps and Juras likewise have restricted eastward expansion at the southeast. So the efforts to expand have been largely at the northeast and across the sea. The region of Alsace-Lorraine and Belgium has been fought over many times by French armies. Expansion across the sea was early commenced and at one time or another much of North America was nominally under the French flag. It was lost, however, chiefly because the British were stronger as colonizers. The French were too much attached to France to leave in large numbers—it is said indeed, that the 3,000,000 French Canadians have all descended from only about 5,000 emigrants. The present French Empire (Fig. 168) is almost altogether non-French—indeed most of the 5,500,000 square miles is nearly unpopulated desert. Its location chiefly in north Africa reflects

geographic influences, since it is logical that north Africa should be controlled by the leading Mediterranean country, if by any European nation.

The cultural expansion of France has been as strikingly facilitated by geographic conditions as its real territorial expansion has been made difficult. For centuries France has been near the center of the more highly civilized part of the world, and its capital has been almost a Mecca for people seeking "culture" (Fig. 144). As a result of these

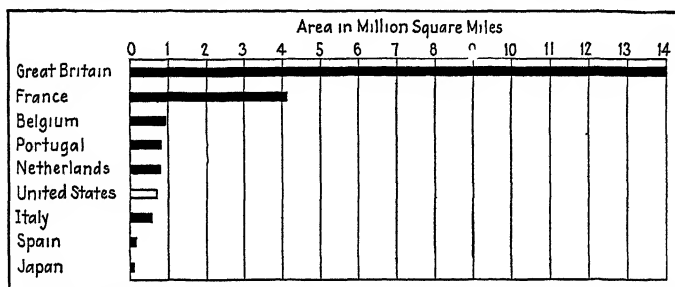


FIG. 142.—Areas of the colonial possessions of various countries, excluding the homeland influences and the great strength of French culture, France has had a profound influence on the cultural development of much of the world.

Germany.—The territorial expansion of Germany toward the west has been prevented by France, toward the east by Russia, toward the north by the sea and by three small nations, Belgium, Netherlands, and Denmark who are either protected by the larger nations or are not worth the high cost of conquering and holding. Toward the south the

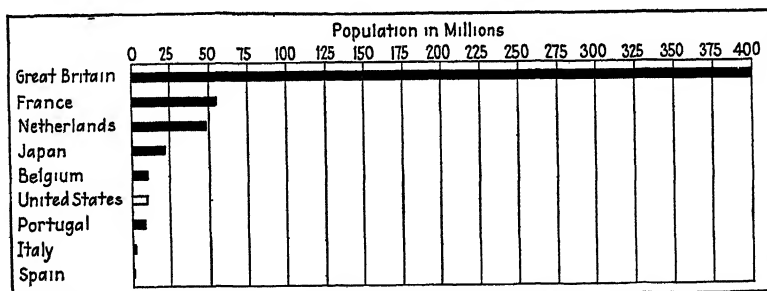


FIG. 143 —Population of the colonial possessions of various countries

Alps impose a barrier at the west, but toward the southeast, down the Danube Valley and the lands on either side, Germany had a better chance of expanding. The lands were all densely peopled and the undeveloped resources comparatively small, so if the expansion was to stop short of the Mediterranean it would afford little real advantage. The German imperialists looked toward Mesopotamia, however, a land where cotton can be grown under irrigation and known to be rich in petroleum. The

nations between Germany and Mesopotamia were not powerful enough to long stop the expansion of Germany, and hence the shibboleth "Drang nach Osten" became increasingly popular with the imperialists as Germany grew in strength. An economic and commercial expansion in that direction could have been readily carried out but would have required decades. So a military expansion was undertaken and the objective promptly attained for a time in 1915 to 1918, but, with the end of the World War, political expansion in that direction ended. Now, however, the quiet economic penetration which is logical is taking place and the natural resources are being developed with the help of the people, capital, and accumulated knowledge of Germany, a region which is more favored in climate, location in respect to advanced neighbors, and in resources.

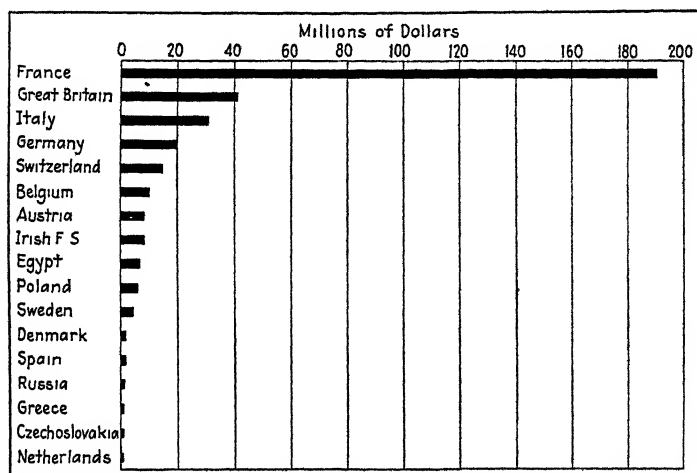


FIG 144—Expenditures of American tourists, 1927, official estimate

Germany now has no possessions in other continents and never had any real colonies, because the millions of German emigrants went almost exclusively to the United States or other established nations. Extensive German emigration did not commence until after the desirable lands were already appropriated. The possessions which the imperialists of Germany acquired after the formation of the German Empire in 1871 had been considered by the British imperialists as scarcely worth having, and the Germans found them all an economic liability rather than an asset, just as France and Italy have found theirs.

The spread of German ideals, especially as to the value of thoroughgoing scientific research, has been facilitated by Germany's fairly central location and by the accident that it contains the remarkable deposits of potash and other salts at Stassfurt and much sandy land requiring

fertilization (Fig. 198) These latter conditions have greatly encouraged the development of the science of chemistry. The spread of German culture has also been conspicuously aided by the strong central government which grew up partly as a reaction from the numerous petty principalities which were welded together by Bismarck.

Great Britain.—The development of the British Empire has been along quite different lines than that of Russia, France, or Germany. It includes much land in temperate latitudes. Its extent is shown on a map in the chapter on Great Britain (Fig. 164). The loss of the United States was largely due to French aid in the Revolutionary War and, furthermore, was chiefly a political loss, as the United States has continued to be culturally and commercially, to a very large degree, an offshoot of the British Isles.

The consolidation of the islands into the United Kingdom required centuries, because the various sections differed little in strength. First several principalities were united into England, then adjacent Wales was included, then more remote Scotland, and lastly insular Ireland. Before Scotland and Ireland were incorporated, a long attempt was made by the English to expand territorially upon the continent, but the Hundred Years War rather clearly proved the impracticability of expansion in that direction, and henceforth the territorial expansion was essentially all in other continents.

Of great significance in the spread of the British was the fact that Britain is an island. Because of the choppy sea and the strong British fleet it has been so difficult to invade that there has been no successful invasion since 1066. Hence the internal development along peaceful lines has proceeded without the numerous serious military interruptions which have occurred in most European countries. This internal development has been abetted by the fact that there was no need for an extensive standing army. Instead of largely wasting a year or two in compulsory service in the army, the young men could train themselves along constructive lines without interruption. Insularity has meant, also, that all foreign commerce must be by boat. But once loaded on ships, the distance that the cargo is hauled makes comparatively little difference. Hence the foreign trade was not at all restricted to Europe. The trade with other continents led to the acquiring of possessions in sparsely settled regions, or where the people were comparatively weak. These possessions were secured with relatively little warfare—less than one-tenth the cost which was expended, for example, by France under Napoleon and numerous other generals through many decades to incorporate a few more square miles of densely peopled, advanced, adjacent territory (Fig. 142).

Of profound significance in the growth of the British Empire was the fact that the industrial revolution commenced in Britain and made

possible a great increase of population there. A great reduction in the death rate, as a result of the scientific discoveries made there and in neighboring lands, also aided powerfully in one of the greatest natural increases in population that the world has known. Partly because the increase was largely rather readily absorbed in the expanding industries and commerce of the British Isles or in their colonies in congenial mid-latitudes, the practice of rigorous birth control, which had reduced the French birth rates to low figures, did not spread rapidly in Britain until the World War. Its widespread practice in France a century and a quarter earlier was augmented by the long Napoleonic wars during which there were such great casualties that parents generally came to fear that their sons would be killed or maimed in warfare. Few thoughtful parents will deliberately rear sons for such an end.

The industrial revolution spread from Britain into other lands but did not reach Germany to any large extent until nearly a century after it started in England. Even now it has barely reached large parts of

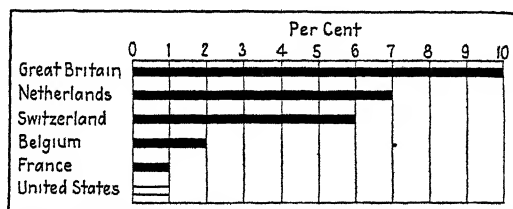


FIG 145 —Net income from foreign investments, percentage of total national income, 1928.

southern and eastern Europe. Its spread was retarded by the fact that Britain possessed a superior coal supply, numerous able, trained workers who could readily and cheaply supply a large share of the demand for manufactured goods, and commercial, financial, and social machinery to handle the export of manufactures. The spirit of nationalism, however, has encouraged the construction of competing factories in many lands, for nationalists contend that their own nation should be as self-sufficient as possible. In order to permit factories to operate profitably, the nationalists often have raised tariffs and given bonuses

Although the earlier development of the factory system in Britain was of great importance in the acquiring of numerous valuable coaling stations and other possessions, it is obviously not the major factor in British expansion. The characteristics of the people themselves are of prime significance, as is proved by the fact that most of North America was made English before many factories were established in England, before much coal was used, before there was much foreign trade, and also before the population of Britain was nearly as large as that of France. The superior energy of the British may be partly due to the stimulating

effects of their climate, and to the selective effects of migration from the continent. As to the latter, it is established that the sections of England which yielded most early New Englanders and leaders among the early colonies elsewhere are the sections into which contingent after contingent of ambitious peoples came from the Continent.

Not only has there been a remarkable territorial expansion of the British but their cultural expansion has been even more noteworthy. English is spoken by many more people than any other language and the number of books read in that language is many times as large as in any other. British ideas and ideals, inventions and methods have spread into all lands. Furthermore, English-speaking persons own most of the mines, waterfalls, oil wells, and irrigation works of the entire world (Fig 145). If the English-speaking nations should work together they could easily dominate the world.

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PART II
THE INDIVIDUAL COUNTRIES

A. NORTHWESTERN EUROPE

CHAPTER XI

THE BRITISH ISLES

The advantageous position, the highly favorable physical features, the stimulating climate, and the abundance and variety of natural resources which have been such important factors in accounting for Europe's leadership among the continents are epitomized in the British Isles. The fortunate combination of such an environment and an excellent racial stock has made these island peoples, on an area smaller than the state of New Mexico, one of the world's greatest nations. Few regions of equal size have so influenced the world at large. Through conquest, both military and economic, they have acquired one of the greatest empires of all time and have been, until recently, the world's leading nation in commerce and industry.

PHYSICAL FEATURES

The British Isles were formerly joined to the European mainland, the connection having been severed only in comparatively recent geologic times. Consequently, many of the major physical features of Great Britain are extended westward into Ireland and eastward into the continent. Thus the old resistant rocks of north Ireland and north Scotland are prolongations of those of Scandinavia; those of south Ireland have their counterpart in South Wales and Cornwall and Brittany. Likewise, the chalk cliffs of Dover are duplicated across the strait in France.

Though limited in area the relief is extremely varied. The physical map¹ shows the major highland areas extending in an almost continuous chain from northern Scotland to Cornwall, while westward projecting extensions form the marginal highlands of Ireland. The plains areas are in two sections: the English Lowlands occupying southeastern England, and a second lowland running across the backbone of older rocks through central Scotland and Ireland.

During the glacial period the ice covered all of the British Isles except that part of England south of the Severn-Thames rivers. North of this line the work of the ice is everywhere evident, both in its depositional and erosional features.

¹ The student will find it most helpful if the physiographic diagram in the pocket of the cover is spread out before him as he reads the text.

The Highlands.—*The Scottish Highlands* are westward extensions of the Scandinavian mountains and, like them, are a rugged mass of ancient crystalline rocks, dissected by water and ice, which show marked relief, in some areas as much as 2,000 feet. A narrow gash, Glen More, indicates a northeast-southwest fault, south of which the highlands are known as the Grampians. This trench has been taken advantage of in the construction of the Caledonian Canal, although as a commercial waterway it is too small to be of economic importance.

The eastern and western coasts of the highlands are in marked contrast. The latter is made up of bold rocky headlands deeply indented by fjords and bordered by numerous rocky islands. The general slope of the highlands is eastward, providing on the North Sea coast a narrow, although practically continuous, coastal plain. In contrast to the west coast, the eastern fringe has more fertile soil, warmer summers, less rainfall, more level land, and better transportation facilities. Consequently the scanty population is chiefly on this margin where oats, barley, and cattle can be raised, and where fishing is important.

The interior of the highlands is of little economic value. The rocky slopes are mostly treeless, bog and heather covering the lower parts, while above they are practically bare. Some of the valleys, such as the Trossachs, attract many tourists, while game preserves also yield a small return; however, the native population is decreasing and the numbers of sheep and cattle show a constant decline.

The Southern Uplands of Scotland differ in several important respects from the highlands with which they were formerly continuous. They occupy a much smaller area, their relief is much more subdued, and they lie between two important economic regions. Their position between the more densely populated regions to the north and south has made them a transit zone. In early days as the "border country" and the meeting place of Scots and English, this region was the scene of almost perpetual strife. As a consequence of their lower average elevation and more southerly latitude, the vegetation cover is much heavier, and they have long been one of the most important of British sheep-raising areas. In several counties the numbers average over one to the acre, and woolen manufactures, especially tweeds, are important.

The Pennines are topographically, though not geologically, a prolongation of the Southern Uplands of Scotland. Like the latter, they separate important industrial areas based chiefly upon the coal found on their flanks. The ridge is an anticlinal fold of sedimentary rock whose upper portions, including the coal layers, have been removed by erosion. The scanty soils are treeless, but support a grass cover extensively used for sheep pasture. Two breaks across the range, the Tyne and Aire gaps, provide important communicating routes between east and west England.

The Lake District of northwestern England is a dome-shaped elevation on the slopes of which lie several long narrow lakes. These have been formed by valley glaciers which dammed several of the stream channels radiating from the central elevation. The beauty of the scenery attracts many visitors, although the rainfall is very heavy, one place having 131 inches annually.

The Welsh Mountains occupying practically all of Wales with only narrow coastal plains on their seaward margins represent a further continuation of the Scottish Uplands and, like them, are thoroughly dissected, making both agriculture and transportation difficult. Except for the excellent coal in the south, Wales is but poorly endowed by nature. The mountains contribute building stone and slate, while their scenic attractions and water supply are of interest to the English industrial regions near by. Agriculture on the margins of the country includes the raising of oats, barley, sheep, and cattle. Coastal plains along the northern and southern borders afford the major routes from London to Ireland. Outside of the coal basin of South Wales which supports an important commercial and industrial population, the poverty of resources has led to much emigration to the richer English lands to the east.

Cornwall.—Another outlier of the Northwest Highlands, Cornwall, was formerly noted for its tin and copper deposits. These ores were carried across the Bristol Channel to the coal of South Wales and were important in initiating the metallurgical industry there. The mines have long since been practically exhausted, although Cornwall possesses excellent china clay, much of which is shipped to the potteries of Staffordshire. The chief occupation on the peninsula today is agriculture, for while there is much rough land, the southerly position and marine influence provide favorable conditions for early vegetables, fruits, and flowers. The dairy-ing industry is likewise well developed, and Devonshire cream is famous.

The Lowlands.—The English Lowlands occupy all of England except the Pennines, the Lake District, and Cornwall. It is an old coastal plain across which, from north to south, run two cuestas with westward facing escarpments. Thus both topography and soils show a zonal arrangement, the resistant limestone and chalk escarpment belts alternating with the weaker clays which form the back slopes or vales of the cuestas. These features are well shown in the physiographic diagram. The western limestone escarpment in the south is known as the Cotswold Hills, in the north, as the Lincoln Heights. Similarly the eastern, a chalk formation, in the south is known locally as East Anglian Heights, while, north of The Wash, it meets the sea as Flamborough Head. To the south of London is the truncated dome formation known as the Weald, with bordering escarpments, the North and South Downs. From the broad area south of the Pennines, the Midlands, extensions of the lowland, run northward on either side of that range. On the west this

region opens into Lancashire and to Ireland through the Midland Gate, while on the east it forms the Yorkshire Plain.

The *Scottish Lowlands* occupy a graben valley which separates the highlands on the north from the uplands on the south. The sedimentary rocks and coal beds whose settling made this structural valley, were thus preserved from the rapid erosion which removed the rest of the same formations from the structurally higher elevation on either side

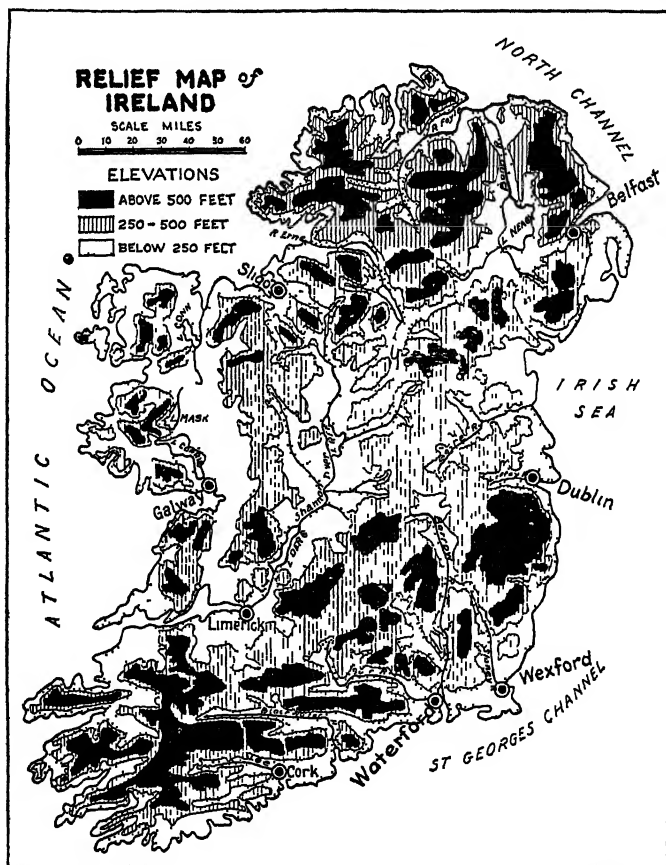


FIG. 146—Ireland's mountainous rim is not continuous, the interior plain reaching the coast in many places (U S Department of Commerce)

A level topography, fairly fertile soil, with deposits of coal and iron, have enabled three-fourths of the people of Scotland to make this depression their home. The firths of Clyde and Forth almost meet here—less than 30 miles separating their heads. An additional subsidence of less than 100 feet would transform the lowland into a strait.

Here as in Britain as a whole, climatic contrasts between east and west make agriculture in the latter primarily pastoral, in the former a

producer of cereals. The contrast is, however, mainly due to the coal and iron of the west which have made of the Clyde district a great industrial region, while the Forth is primarily-agricultural. The Glasgow area is the world's greatest shipbuilding section, while Edinburgh is a cultural center with great printing and publishing establishments.

The Surface of Ireland.—Ireland consists of an extensive inland plain surrounded by a more or less continuous mountainous rim (Fig 146). The frequent and fairly wide gaps in the mountains, however, provide ready access to the seacoast in many places. This central plain of the island is a drift-covered limestone lowland occupying about a third of the area. The surface is undulating, the main drainage being by the Shannon toward the west. The poor drainage and moist cool climate have combined to promote the formation of peat bogs which cover approximately a seventh of the country—mostly in the central plain. Peat is the chief fuel for domestic heating, and it is estimated that the 6,000,000 tons removed annually only equal the new growth. The peat reserves are estimated in heating power to be equivalent to about 2,500,000,000 tons of good coal. The depth of drift covering, as well as the fertility and drainage, varies much from place to place and is important in accounting for the population distribution.

CLIMATE

A Typically Marine Climate.—Because of their position on the leeward side of the Atlantic, the British Isles, although in the latitude of Labrador, have a remarkably mild climate. No part of the islands has, in the coldest month, an average temperature below freezing, nor is their average for July anywhere above 63° F. The greatest annual range of the average daily temperature of only 25° in the southeast about London is, on the western margins, reduced to 15°.

Temperatures—The contrast between winter and summer conditions as influenced by the ocean is most remarkable. Thus, the July isotherms run in a general east-west direction, the temperature decreasing with latitude. In winter, however, the influence of the North Atlantic Drift is much stronger, the warm waters being pushed far to the northeast between Iceland and Norway. As a consequence January land temperatures decrease eastward rather than northward, that is, it is a question of distance from the Atlantic rather than from the equator (compare Figs. 28, 29). Thus the January average for the northernmost point of Scotland (40° F) is the same as for Southampton, while from western Ireland, almost 600 miles farther south, eastward to Dover, there is a drop of 6°. Because of this beneficent influence of the surrounding waters, the average January temperature about the islands is approximately 30° higher than is normal for that latitude, although the summers are about the average. January in London is warmer than Nashville,

Tenn., 1,100 miles farther south. Thus the winters may be classed as mild, the summers cool and cloudy

Rainfall is everywhere sufficient for crops and decreases from west to east. In some of the more exposed western slopes the precipitation is too heavy, especially for cereals. Since the higher elevations are mostly in the west, the rainfall in the east is dependent upon the cyclonic storms in whose paths the islands lie. London receives only 25 inches of rain annually, but, since a fair share of it comes during the growing season and the cool summers result in little evaporation, the supply is ample for ordinary crops. The sunshine, as in most of northwestern Europe, is deficient, averaging between 3.5 and 4 hours daily and diminishing from 38 per cent of the possible amount in the southeast to 27 per cent in the northwest.

In general the climate is well suited for both agriculture and human activities. Both temperature and rainfall conditions favor grass rather than grain, so that there is a strong emphasis upon the pastoral phase, while the mild winters make outdoor labor possible practically throughout the year.

AGRICULTURE

Subordination of Agricultural to Industrial Interests in Great Britain.—Until the close of the eighteenth century Britain was predominantly

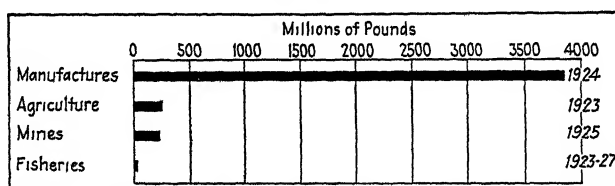


FIG. 147 —Relative importance of primary production and manufactures in Great Britain according to value in pounds sterling.

agricultural, and even up to 1875 farming was fairly prosperous, but during the past 50 years it has shown a marked decline. From the peak of agricultural activity in the seventies up to 1914, the arable land of England and Wales decreased by one-fourth. Even the World War with its threatened food shortage was able to stem the tide only temporarily. Less than 7 per cent of the population are engaged in farming, about the same number as are employed in mining or in a single branch of industry—that of textiles (Fig. 147). About one-fourth of the area of the United Kingdom is cultivated, while more than twice that amount is in permanent grass and pasture (Fig. 148). Much of the latter, however, is highly productive. No other of the great nations is so highly industrialized, no other has allowed its agricultural output to become so small, resulting in so great a dependence upon the rest of the world for foodstuffs. Under

normal conditions, Britain produces sufficient food to support her for only 6 weeks. It seems an anomaly that with such a vast industrial population requiring foodstuffs and with unemployment which for several

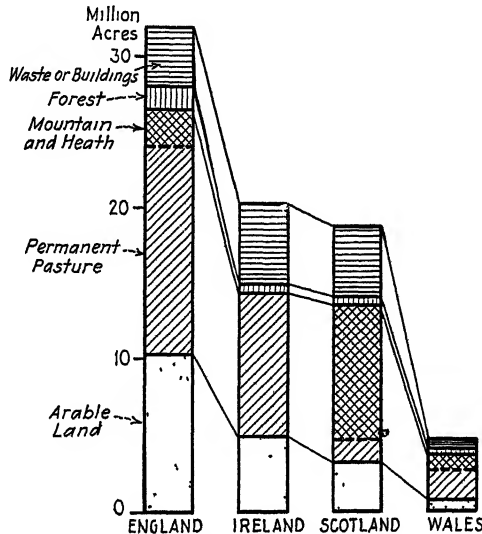


FIG 148—Forest, pasture, and arable land in various parts of the British Isles

years has run well over a million, there should be large and increasing areas of potentially productive land either idle or inefficiently used.

The physical conditions affecting agriculture in Britain help to explain some of these trends. Thus the marine climate is in general much better

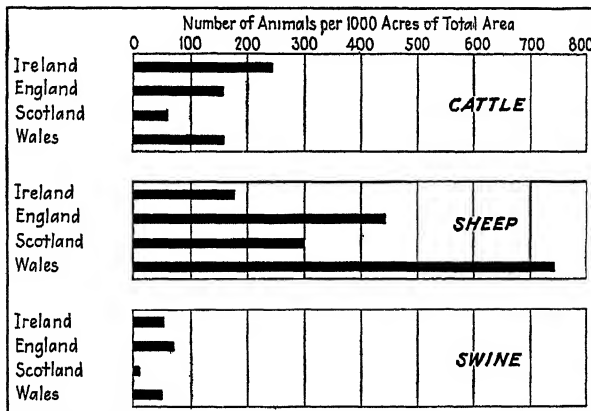


FIG 149—Density of animal population in the major divisions of the British Isles

sued to pastoral than to cereal production; persistent rains frequently delay seeding and interfere with the harvest; northern and western Britain have much hilly and mountainous land unsuited for cultivation

and even the chalk downs of the English Lowland, while productive of short sweet grass, are poorly adapted to cultivated crops (Fig 45). While it is true that these conditions have been of long standing, their influence could be ignored only under the relatively non-competitive conditions preceding 1875.

Beginning about that time, however, western Europe began to be flooded with machine-raised wheat from the cheap virgin lands of the New World. The British government, moreover, maintained a free-trade policy to insure cheap food for its industrial workers, and English ploughlands were turned into sheepwalks. The competition of oversea foodstuffs was naturally least in the perishable materials, so that the British farmer turned more to the production of fresh meat, vegetables, fruits, and dairy products. With the advent of refrigerated meats, he has emphasized more and more the raising of pure bred stock and the production of fresh milk. Quality of product rather than cheapness has enabled him to retain a part of the domestic market.

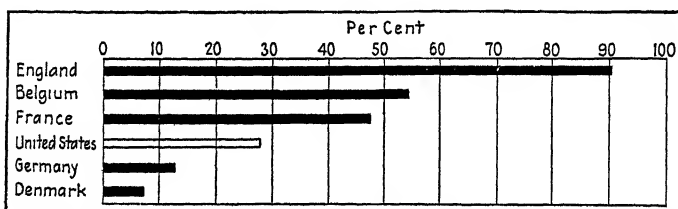


FIG 150 —Percentage of farm acreage operated by tenants in selected countries (U. S. Department of Agriculture)

The reaction of English farming interests to the change in world agricultural conditions is quite different from that in Germany. The policy of the latter was designed to protect and foster agriculture by tariffs, bounties, cheap rates on government owned railways, agricultural education, and experiment stations. Their policy was not to substitute animal for cereal farming, but, by a proper combination of the two, through scientific agriculture to add the animal industry without reducing the harvested crops. They have made a conspicuous success of their plan, and agriculture occupies an important place in their national economy, although industry has helped to foot the bill.

Farm Ownership and Operation—In response to this difference in national policies, there appear marked contrasts in the size of holdings, the returns per acre and per person. Thus the typical farm in Germany is from 12.5 to 50 acres; in England the average holding is 94 acres. Farm wages in the former are lower, the hours of work longer, and a larger dependence is placed upon the labor of women and children. In prewar days the average number of workers per 100 acres was 183; while in Britain it was 5.8, or less than one-third as many. The output

per agricultural worker in Great Britain is considerably higher than in Germany (Fig. 297)

One of the most striking characteristics of British agriculture is the existence of large estates and the prevalence of tenancy. Over 90 per cent of the farm acreage is operated by tenants, a proportion almost double that of France, and about seven times that of Germany (Fig. 150). Tenant leases in the British Isles, however, unlike the usual practice in the United States, are for long periods—often 99 years—so that it is customary for the same holding to be occupied and worked by successive generations of the same family. Thus many of the ills we ordinarily associate with tenancy are absent. Furthermore, the last two decades have witnessed a rapid breaking up of the large estates. Prior to 1914 two-thirds of the land in England and Wales was owned by about 10,000 people. Much of the land in the large holdings was, however, not very valuable

Cereals vs. Animals.—Of the crops, oats, hay, wheat, and barley are, in the order given, the most important according to acreage occupied. Oats, adapted to a cool moist climate are raised almost everywhere, as are potatoes, while wheat is most important in the drier east. Yet, as indicated above, the emphasis is largely upon live stock (Fig. 151). With sheep about six times as numerous as swine and over three times as

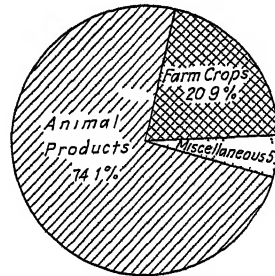


FIG 151—Animal products account for about three-fourths of the value of farm products in Britain.

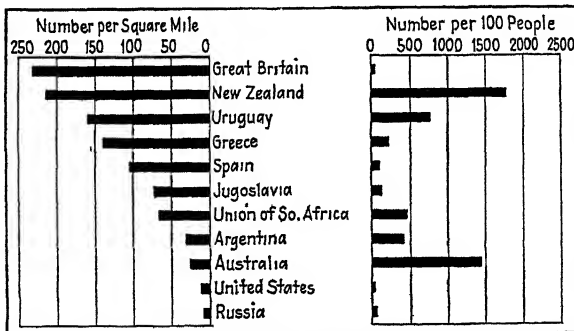


FIG 152—Relation of sheep to land area and to population in important countries

numerous as cattle, Britain holds in wool production high rank among European countries, normally next to Russia (Fig. 152). The returns from the sales of pedigreed stock, while considerable, are far less than those from the meat and dairy products, especially the latter. It is estimated that about 38 per cent of the value of Britain's farm products are from cattle alone. In spite of this, 66 of the 127 pounds per capita

meat consumption are imported, while the dependence upon foreign supplies of cereals is still considerably greater. It should be further noted that part of the home-grown beef and mutton (about 13 per cent) is raised on imported feed. Thus in Great Britain a combination of physical and economic factors have served to subordinate the interests of the farm to those of the factory. The British landowner was on the one hand compelled to bid against the factory and mill for his labor, while on the other hand he had to sell his produce from high-priced fields in an open market in competition with foreign foodstuffs. The natural response has been broad pastures with flocks and herds requiring little labor and yielding perishable meats and dairy products better able to withstand competition in the local market.

Agriculture in Ireland.—*The backward state of agriculture* in Ireland, as well as the economic conditions in much of that island, warrants special attention. To a considerable extent the explanation rests upon non-geographic factors—matters of political and commercial relations with England—as well as upon the local physical environment.

Historical Background.—Ireland and Great Britain are separated only by narrow waters, yet that slight physical separation has added its influence to the racial, cultural, and religious factors in accounting for the lack of sympathetic understanding and cooperation so long characteristic of Anglo-Irish relations. The conquest of Ireland begun some eight centuries ago was never entirely completed, and the intervening period has been one of almost constant strained relations, often breaking out into open warfare. Centuries of oppression and mismanagement of an intensely individualistic people left a heritage of hate which has made recent efforts to arrive at an amicable understanding extremely difficult. The situation was complicated by the fact that in the northeastern part of the island, in Ulster, there had been planted extensive settlements of English and Scotch. This section desired close union with Britain and bitterly opposed all efforts of south Ireland to make the island independent. Political, social, and religious differences were reinforced by marked contrasts in economic opportunity. A compromise settlement has finally been agreed upon which leaves Northern Ireland united with Great Britain, while the Irish Free State receives dominion status.

A Land of Retarded Development.—Thus the lot of Ireland for many years was not a happy one. Handicapped in natural resources as well as by centuries of political and economic restrictions and civil strife, she has lagged far behind Great Britain in economic development. Since 1841 the population has been reduced almost half, chiefly through emigration. The potato has been the main dependence of the poverty-stricken masses and so closely did the population press upon the meager resources that when the crop failed thousands were forced to emigrate or starve. A bad land system and overpopulation have been largely corrected, and

there is today less of a land monopoly in Ireland than in England. The future of the Irish Free State seems promising, although much time will be required to repair the damages of civil war and political mismanagement.

Although area and population are about the same as those of Scotland, the two countries are, in most respects, quite dissimilar. The keynote of Ireland is uniformity; of Scotland, contrast. In the former, climate, topography, population density, and human activities vary little from place to place. In Scotland, there are wide differences both in the natural setting and in the human adaptations. Ireland is dominantly plain, Scotland, mountain. The former has, therefore, considerably more arable land, over three times as many cattle, and six times as many swine, but less than one-half as many sheep as has Scotland (Fig. 149). In the latter a narrow zone 50 miles wide supports three-fourths of the whole population; in Ireland, the people are more evenly distributed.

Ireland, a Land of Farms.—Unlike Great Britain with its vast mines and factories, Ireland is lacking in the fundamentals of industrialism, so that whether they will or not the great majority of the Irish are compelled to be farmers. While in Ireland about two people in every five are employed in agriculture, in Great Britain two out of five are engaged in industry. With the soil as the one great resource, its utilization is, on the other hand, rather narrowly restricted. The position to the west of Great Britain results in an even more pronounced marine climate. Furthermore, the saucer-like form of the surface, recently glaciated, a fairly heavy rainfall, and low rate of evaporation have resulted in extensive areas of poorly drained land, including much bog, a very real obstacle to progress in both agriculture and transport. In general, Irish farms are small, averaging about 28 acres as compared with 94 acres per holding in Great Britain. Moreover, in the former, farm wages are lower, since there are no extensive industries to compete for labor, and poverty is widespread.

Crops and Live Stock—Though too damp for many cereals, Ireland's climate favors a luxuriant growth of grass with a large carrying capacity for live stock, the pivot of Irish agriculture. One-half of the cropped acreage is in hay and the emphasis upon the animal industries is even more pronounced than in England (Fig. 153). Eastern Ireland has more fertile soil as well as the more moderate rainfall, so that this is the chief region of tillage. Oats and barley are the principal cereals, while potatoes, raised mainly as a supply crop, are grown everywhere. Flax, as already suggested, is the characteristic product of Ulster, although the acreage is now small. The output of animals and animal products in 1912 to 1913 was valued at over four times that of the crops and essentially the same conditions maintain today (Fig. 154). There are more cattle than people, and dairying is an important and growing industry with bacon, poultry, and eggs important by-products.

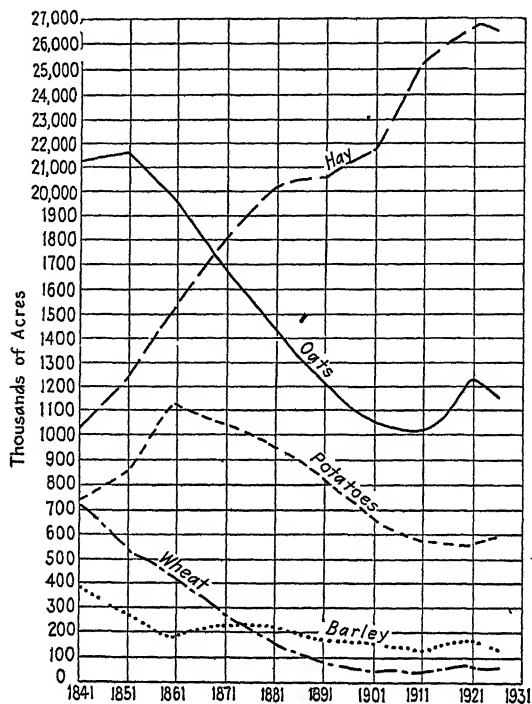


FIG 153.—Trends in land utilization in Ireland Compare with Fig. 154. (Courtesy of H. B. Smith)

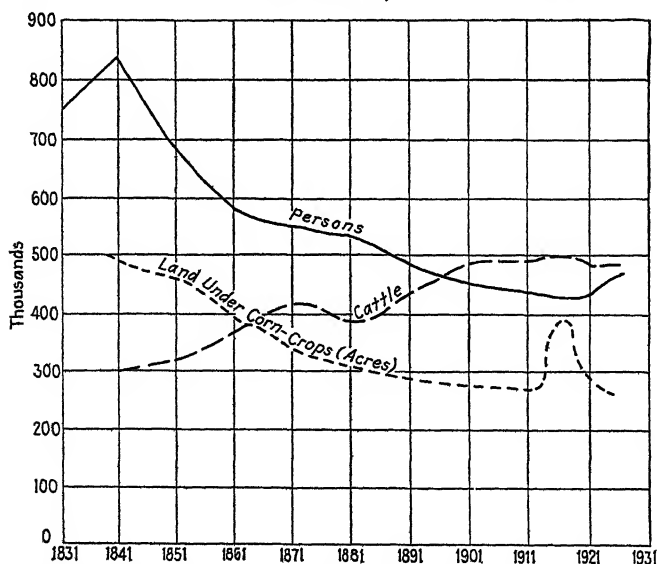


FIG 154 —As in much of northwestern Europe, cereals (i.e., "corn crops") have in Ireland been displaced by pasture and cattle. The population decline shows a trend roughly parallel to that of the land in grain (Courtesy of H. B. Smith)

The proximity of the great market in industrial Britain, particularly in South Wales and Lancashire, is of vital interest to Irish agriculture. Eight out of every ten of Ireland's cattle are shipped to the English market—and five out of those eight are shipped alive to be fattened on the Cheshire Plain (Fig. 155). The export of bacon, eggs, and dairy products especially butter, is largely to the industrial centers of England. In a recent year (1926), of the total foreign trade of the Irish Free State, 75 per cent of the imports were from, and 96 per cent of the exports were to, the United Kingdom. The foreign trade passes mainly through Dublin, the capital and chief port of the Free State. The lack of an extensive meat-eating population and of a local market for by-products of the slaughter house has thus far discouraged the establishment of local meat-packing plants.

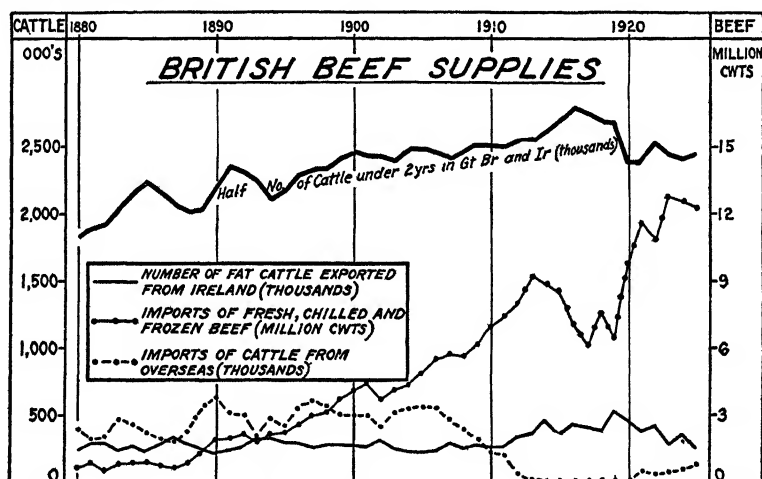


FIG. 155.—Imports of meats from distant lands have grown much more rapidly than have cattle from Ireland (U S Department of Commerce)

MINERAL RESOURCES

Britain's Coal. Key Resource.—Coal is the pivot around which the economic life of Great Britain moves. The mining of it alone furnishes work for about 2 per cent of the population and supports about a tenth of the whole population.¹ The annual prewar value of the product at the pit head approximated \$680,000,000 and it paid wages, profits, and royalties totaling \$465,000,000. From 1900 to 1913 Great Britain produced annually more coal than all of the rest of Europe together. Of much greater importance, however, is the fact that coal is the main-spring of British industry as well as of its commerce. There are ten factory workers to every farmer, and, as transformed by their labors,

¹ In Germany about 0.8 per cent are employed in coal mining and in Poland, the third largest European producer, about 0.4 per cent.

the original value of the fuel is multiplied many times over (Fig 211). Abundant coal and highly skilled labor are the twin magnets which serve to attract foodstuffs and raw materials from all over the earth to feed British workers and British machines. About one-third of the total receipts of British railway traffic is for hauling coal. Not only is it the chief dependence of domestic industry but itself is an important factor in the foreign trade, where it plays a double role, serving as a reducer of ocean freight rates as well as a valuable commodity which can be exchanged for raw materials. Every Briton in whatever walk of life, is intimately affected by British coal (Fig 71)

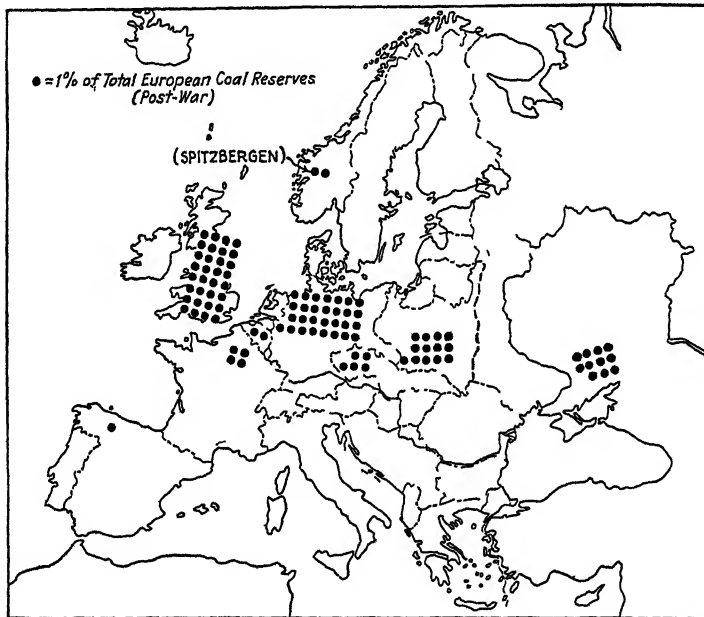


FIG 156 —The boundary changes due to the World War have enabled Britain to pass Germany while the reserves of France were doubled. Germany, Austria, Hungary, and Russia lost important reserves (U. S. Department of Commerce.)

Extent and Character.—The deposits are not only enormous in extent but also excellent in quality. Since the World War Great Britain has supplanted Germany in first place in reserves, possessing about a third of the total of all Europe (Fig. 156). So vast are these beds that at the present rate of consumption it is estimated that they will last for many centuries. The varieties available run the entire gamut, including anthracite, steam, gas, and coking coals, all of high grade. Individual beds are known with a maximum thickness of 30 feet and in one section there are 36 separate seams totaling 144 feet of coal. The beds occur at all angles from horizontal to vertical

Short-haul Characteristic.—The deposits are admirably distributed both for domestic use and export. Some of them are close to iron ore, others are practically on tidewater. One of the great advantages of the English coal industry is the relatively short land haul either to local markets or to the seaboard. The average distance for all English coal from mine to port is estimated at 25 miles costing about 47 cents, as compared with 140 miles, Ruhr to Rotterdam, 70 cents, and 310 miles from the mines of West Virginia to Hampton Roads, costing about \$1 25.

Of the coal fields of the British Isles practically all of any consequence are within Great Britain. Their combined area totals about 6,600 square miles, or one-tenth that of the Appalachian field of the United States. Of the total reserves of the United Kingdom, estimated at nearly 190,000,000,000 of tons, the fields of England alone account for about 61 per cent, Scotland, 12 per cent, and Wales, 21 per cent.

Major Coal Fields.—The important coal fields of Britain may be conveniently grouped into three major districts: (1) in the Scottish Lowland, (2) about the Pennines, and (3) in South Wales (Fig. 157).

The Pennine Group—The Pennines were originally covered by coal formations that have been eroded from all except the lower flanks. On the east are the Durham-Northumberland and the York-Derby-Nottingham fields; on the west are the Cumberland and Lancashire fields. To the south of the Pennines is a group of small deposits comprising the Midlands district.

The Durham-Northumberland field possesses several advantages: it has much excellent coking coal, it lies close to tidewater and also to the Cleveland iron ores. As a result it is both a large exporter and a great industrial district, specializing in iron and steel goods, particularly shipbuilding. Newcastle-on-Tyne is one of its leading shipbuilding centers as well as an important coal exporter supplying much fuel to London and to Baltic Europe.

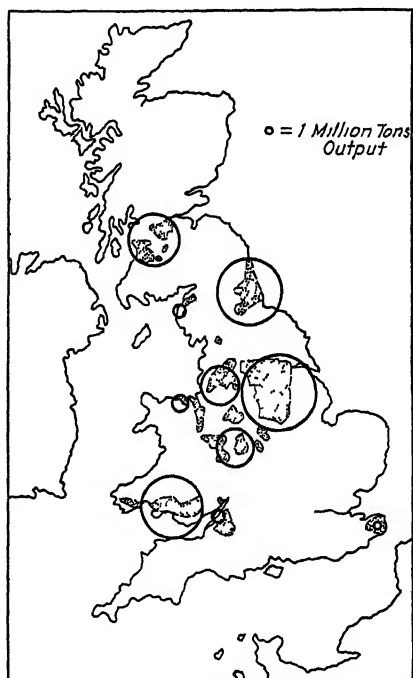


FIG 157.—British coal fields and their production in 1928

To the south lies the York-Derby-Nottingham coal field—the most important producer of all England. Its output is largely used locally in iron, steel, and textiles. This is the great wool manufacturing region centering at Leeds and Bradford.

The Cumberland field is small and principally of interest because of its association with the local iron ores and the iron and steel industry of Barrow.

South of it lies the Lancashire district whose coal is the major support of the world's greatest cotton-textile region. Access to the sea is afforded by the Mersey and the Manchester ship canal to which the near-by mines and factories are joined by means of a network of canals and railroads. "The potteries" form a southward extension—pottery clay being found in some of the coal mines, although dependence is now mainly on Cornwall clays. South of the Pennines the coal is used in the Birmingham district—"the Black Country"—where metal industries again predominate.

Welsh Fields.—South Wales, including the Monmouth field to the west (Fig. 157), is notable for its large export of high-grade steam coal, Cardiff as the world's leading exporter surpassing all other ports in coal shipments. Three-fourths of the output is normally shipped to all parts of the globe (Fig. 159). Local coal practically upon tidewater is also made use of in smelting much imported ore, especially at Swansea.

The Scottish Fields.—The Forth and Clyde coal fields occur in the graben valley forming the Scottish Lowland. Coal measures originally covered three times as much of southern Scotland as are comprised in this field, but erosion removed the bulk of them. The output of these fields approximates 35,000,000 tons annually, supporting an extensive industrial life including textile, machinery, shipbuilding, and chemical works. A considerable amount of coal is also exported to Ireland, the industries of Belfast deriving their coal supply from the Ayrshire fields to the west of Glasgow.

Growth of the Industry.—Although used for some 2,000 years it was not until the eighteenth century that coal really became vital to British industry and trade. The invention of coke making, the steam engine, the Bessemer process for making steel, and the varied and rapid changes characterized as the "industrial revolution" were directly or indirectly dependent upon coal (Fig. 158). It was used to smelt the ores, to make the machines, and then to run them; finally, it propelled the ships which marketed these wares and brought back more raw materials and food.

During the three-fourths of a century prior to 1914, the coal industry had made enormous strides. In 1860 Great Britain produced four-fifths of the world's supply and the output increased steadily up to the World War. At that time it represented a capital investment of \$675,-

000,000 with 3,100 mines yielding coal valued at \$680,000,000 (Figs. 157, 158)

Shipments of coal had likewise grown until by 1909 they were over four times those of all the rest of the world combined. In 1927 British exports including bunker coal, were 40 per cent of the world's total. About one-third of the coal output is used for bunkers or export (Fig 175)

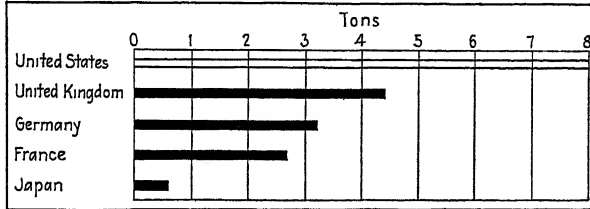


FIG. 158 —Per capita consumption of coal, oil, gas, and water power in terms of coal for leading industrial countries in 1927 (*U S Department of Commerce*)

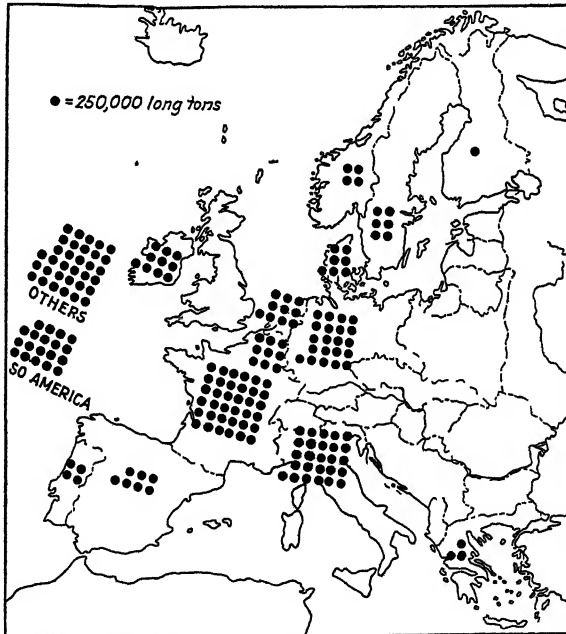


FIG 159 —Distribution of British coal exports in 1928

Its importance in the export trade is not merely as a convenient commodity for exchange, since the outgoing items are mainly manufactures high in value but small in bulk, coal serves as ballast to keep the ships loaded, thus reducing freights on imports. The chief exports are to European countries with two main currents: one to the Baltic countries making up 40 per cent of the total, the other to France and the Mediterranean-Black

Sea countries, which account for about 49 per cent (Fig. 159). It may be noted that Britain's chief coal markets are not the primary sources of her bulky imports. Even so the freight saving is large, for ships will drop their fuel cargoes, say, at Napoli, then complete the journey to Odessa for wheat.

Recent Difficulties in the Industry.—Some of the newly organized countries, *e.g.*, Poland and Czechoslovakia, have become competitors in coal exports. The rapid shift to the use of oil both as steamship fuel¹ and for industrial purposes, the increase of water power, of coal and lignite production by countries formerly large users of English coal, and the increased efficiency in the use of coal have cut sharply into England's former trade. Part of the difficulty is temporary, *e.g.*, German reparation payments and the world-wide depression in iron and steel, but many of the factors mentioned will be operative for a long time. As a result of these conditions involving a loss of markets together with mounting production costs, the output has dropped and the export trade was, in 1928, only 40 per cent of the world's total. The industry, in need of widespread readjustments, offers problems of the first order which will put severe tests upon the country's industrial and political leaders.

British coal mining has been in a chaotic condition since the World War. Even in the decades preceding 1914 there were indications of trouble ahead. The proportion of the world's coal furnished by the United Kingdom declined from 30.4 per cent in 1899 to 19.5 per cent in 1928. As long as the industry had almost a monopoly of world markets it closed its eyes to weaknesses. Antiquated machinery and methods were continued in use, large numbers of small and inefficient pits were operated, while wasteful methods in mining, distribution, and utilization characterized the industry. Even in 1924 only one ton in five was made to yield the valuable by-products which in Germany were made the foundation of vast industries. An indication of the lack of modernization is shown in the slowness to adopt electrification. The United States, Germany, and France have been active in establishing large central power stations resulting in a saving of much coal, a movement in which Britain is considerably in arrears. Furthermore most of Britain's mines are old and, with increasing depth, production costs mount.² The output per man employed has been declining since 1880,

¹ The tonnage of world shipping using oil increased from 3 per cent in 1913 to 40 per cent in 1930 (Fig. 76). About 60 per cent of British coal exports is finally used for bunking so that the significance of this change for Britain is obvious.

² Almost one-half of the coal output is now from seams over $\frac{1}{8}$ mile deep; over one-fourth from a depth exceeding 1,500 feet. In the United States the average bituminous shaft is 260 feet, or less than one-third that in Great Britain. Again, only about one-third of Britain's coal comes from seams 4 feet or over in thickness. The average for bituminous coal in the United States is $5\frac{1}{2}$ feet. The average

a trend found also in France and Germany, though less pronounced. The daily output per miner in Germany has now surpassed that of Britain. In prewar England for every 1,000 men digging coal, 1,100 were doing the other necessary work about the mine. In post-war years this latter figure has been raised to 1,500. The output in 1906 was about the same as in 1922, but in the latter year it required 225,000 more men to extract it. Moreover, each man in the latter year received about 45 per cent more wages than in 1906.

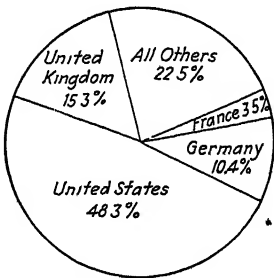


FIG 160 —The "Big Four" of the power world. World power production from mineral fuels and water power in 1925 by principal countries (U S Department of Commerce)

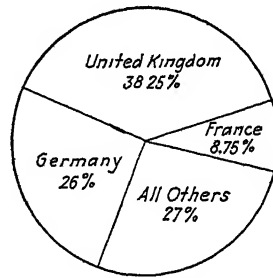


FIG 161 —Almost three-fourths of the power production of Europe in 1925 from the domestic output of coal, water power, and petroleum, came from three countries (U S Department of Commerce)

Other Minerals.—Coal and iron ore make up about 90 per cent of the value of the mine products of Britain. There is a little tin, copper, lead, and zinc still produced, but the deposits have been almost worked out and the output is declining. There is, however, an important refining and smelting industry, in part an outgrowth of an earlier period when domestic ores were plentiful, which now uses local coal but imported ores and concentrates. Of the non-metal group there are important industries based upon the local deposits of limestone, china clay, chalk, and quarry rock.

MANUFACTURES

THE METALLURGICAL INDUSTRIES

Iron and Steel the Basis of English Industry.—Of all British manufactures that of iron and steel is most fundamental. In a country so highly industrialized and so dependent upon foreign commerce these basic materials are essential. Out of them are made the machines

distance from the face of the seam to the bottom of the shaft in British mines is now almost a mile. Only one-fifth of the coal is cut by machines, the fraction for American mines is two-thirds. Part of this latter difference is due to the physical conditions in the mines, part to conservatism. In 1925 seven men were needed to do the work in the British coal industry which had been done by six when the World War broke out.

used for manufacture as well as the carriers of her commerce on land and sea. Of the natural resources essential for industrial growth, only coal ranks ahead of iron ore, and of this former, as we have seen, Britain has abundant supplies.

Her position in iron-ore resources, however, is far less satisfactory (Fig. 201). In her vast reserve she possesses only a very limited amount of high-grade ore, but possibly twice as much which, although low in iron content, is so close to coal and to tidewater as to make its working practicable. Huge deposits—1,000,000,000 tons or more—are so poor as to be a doubtful asset.

Thus iron-ore resources which were ample for her needs at the time of the industrial revolution are now quite inadequate. Even as late as 1875 her mines accounted for one-half of the world's output of ore but in 1910 this was slightly more than one-tenth. Today she is dependent upon imported ore for the production of half of her pig iron. For the past 50 years her per capita production of this staple has remained practically unchanged; that of her industrial rivals has multiplied at a high rate, *e g.*, that of the United States, increasing by one-half every decade, surpassed that of Britain in 1888 (Fig. 199).

Shiftings of the Metallurgical Industries.—The present distribution of the metallurgical industries of Britain is the result of a long series of readjustments. Until the middle of the eighteenth century smelting was dependent upon charcoal and so was located in the heavily wooded areas. The threatened destruction of the forests led to parliamentary restriction. This led in turn to the discovery of coke making and the shifting of the smelters to the coal fields, each of which fortunately had iron-ore deposits near by. Some of the latter were eventually exhausted. Furthermore the invention of the Bessemer process for steel making in 1856 called for ores low in phosphorus, a quality possessed by only part of the British ores. As a consequence the importation of ores, especially from Sweden and Spain as well as of considerable amounts of pig iron, was stimulated. Hence steel centers close to tidewater and to coal underwent rapid expansion, since they were not only able to secure ores but could easily market their surplus output abroad. Four of the six major iron and steel districts accounting for three-fourths of the steel capacity of the country are on the sea, but even those inland are only a short distance from deep water and have especially low rates for export.

The leading iron and steel district is that of Cleveland. Close to the Durham field with its excellent coking coals, to tidewater at Middlesbrough, and yielding the largest output of domestic ore, this district accounts for one-third of the country's pig-iron production. Its equipment is the best in Britain, and while the local ore output shows a constantly declining grade, with greater difficulty in mining, the import of ores from abroad is easy.

Of the three other seaside steel districts, one centers about Glasgow and the Clyde. Its local ores were long ago exhausted and it now depends upon Cleveland and supplies from overseas. The shipbuilding and other industries which grew up there have enabled it to survive the disadvantage of long hauls for ore. The Cumberland district about Barrow in northwestern England is significant because of its high-grade ore—50 per cent iron. The amount of both ore and coal is, however, limited. For some time the local ore deposits of South Wales, like those of the Clyde, have been exhausted. Imported ores supply not only the steel plants but smelters for tin and other metals at Swansea. The Midlands and Sheffield districts are both inland but with excellent transportation to either seaboard. The former includes the "Black Country" about Birmingham. The Sheffield district south of the Cleveland area is one of the older steel centers. In addition to the Yorkshire supply, it has coal from Lincolnshire and the Midlands, excellent fluxes, crucible clays, and fine grinding stone. Little pig iron is made locally. It has specialized in lighter steel products, cutlery, and hardware for which it has a world-wide reputation, but manufactures considerable heavy steel as well.

THE TEXTILE INDUSTRIES

Textiles the Most Valuable Export.—While second in importance to metals in the country's industries, textiles have long been the leading item in British foreign trade, cotton and wool manufactures accounting for about one-third of the value of all exports—with raw cotton the country's largest single import and cotton goods the chief item in Britain's textile manufacture. Britain possesses over a third of the world's cotton spindles, *i e.*, more than all the rest of Europe, although the consumption of raw cotton is much less and the value of the output is somewhat smaller than that of the United States. But since British goods are finer on the average, they use less cotton per spindle than American mills with coarser products.

Cotton manufacturing was of minor importance until after the industrial revolution. The great inventions which marked that transformation and which substituted power-driven machines for hand labor were promptly used in cotton manufacture. These changes, combined with the invention of the cotton gin, resulted in a phenomenal growth of the industry. In the century following 1830 the value of the output of cotton textiles has multiplied by 120 as compared with 6 for linen and 3 for wool. The early modernization of the industry gave Great Britain precedence in the manufacture of cotton goods and until the close of the century the nation enjoyed almost a monopoly of the foreign markets. Since 1900 she has had to meet the growing competition, first of the United States, then of Germany, and France, and, more recently, of

Japan and India. Since four-fifths of the English cottons are destined for export, the growth of the industry within foreign markets is serious. Exports to the Far East have declined to less than half, for cheap labor and long hours there make British competition difficult.

Within Britain the industry shows a remarkable concentration; 90 per cent of the spindles and looms are west of the Pennines in Lancashire and adjacent parts of Cheshire and Yorkshire. This region was particularly favored by the moist climate which prevents the threads from roughening and breaking, by the development of Liverpool as a port of entry for the import of cotton from America, the chief source of supply, and by the fact that the soils of the region are not especially well adapted to agriculture.

Fortunately the changes introduced by the industrial revolution found in this same region their necessary prerequisites of water power, an abundance of clear soft water for bleaching and dyeing, coal, now the main power resource, and iron ore near by upon which an iron and steel industry was established and which could be relied upon to furnish the large amount of complicated textile machinery required.

While some of these factors have lost their former significance, Lancashire still maintains its position as the world's greatest cotton-textile-district. The vast physical plants for spinning, weaving, bleaching, and dyeing, for the manufacture of the machines and the chemicals used, the dense population with its skilled workmen, the facilities and organizations which have grown up in Liverpool and Manchester for handling the raw cotton and marketing the manufactured products—all these would make removal of the industry difficult. Manchester is the chief center of the district being accessible to ocean-going steamers by the ship canal from Liverpool. The city itself has no cotton mills but is mainly a great warehouse center, the mills and factories being scattered about in the villages and cities of the district, the different sections having come to specialize in various processes or in different types of cotton goods.

Woolens.—Sheep raising and the spinning and weaving of wool are ancient industries in Britain. The climatic, topographic, and economic conditions by which wool growing early assumed significant proportions made of Britain, even in the Middle Ages, a great exporter of that commodity. Wool from the Pennine country was exported especially to Flanders for cloth making and even English cloth was sent there to be dyed and finished. With the subsequent immigration of Flemish weavers to eastern Britain, the manufacture of woolens flourished and until 1800 was the chief textile industry.

The gradual change to power-driven machinery served to concentrate the wool working in the Yorkshire coal field. The importance of this district for wool is mainly due to the early settlement there of the immi-

grant weavers, the large amount of wool from the Pennine range, and, later, to the local coal supplies. There is some overlap of the woolen and cotton areas, but in general the superior adaptability of the Lancashire region for cotton has served to give that fiber almost a monopoly there, while two-thirds of the wool spindles and 70 per cent of the looms are in the Yorkshire district with Bradford and Leeds as the chief centers.

Over the island in general, wool has been far outdistanced by cotton. The former employs only about one-half as many workers and the exports are only about one-third as valuable. On the other hand wool has been, perhaps, more of a characteristic product than cotton, since it is much older, has been largely based upon a native raw material, and a greater part of the product finds a local market in Britain. The United Kingdom, before the World War, was the foremost consumer of wool and enjoyed the reputation of producing the highest quality of woolen goods in the world. While this country is now second to the United States in wool consumption, woollens still constitute Britain's chief agricultural export.

Silk manufacture has never been important in the United Kingdom, but in the making of its substitute, rayon, a product of the chemical laboratory, so well adapted to that highly industrialized country, Great Britain in 1928 shared with Italy second rank among European producers of this material (Figs. 103 to 105). Favored by a large home market and a protective tariff, the industry has had a rapid growth.

OTHER MANUFACTURES

The metal and textile industries of Great Britain each had a value added by manufacture of \$1,000,000,000 or more (1924). Food and drink belong in this same class. In addition to these there is a great variety of manufacturing characteristic of a highly industrialized country; among which may be mentioned the printing, chemical, lumber, leather, and rubber groups. The total value added by manufacturing in 1924 was almost \$5,750,000,000 employing almost 5,000,000 people. Northern Ireland's corresponding figures were \$50,000,000 and 170,200 men.

Irish Industry of Minor Consequence.—The lack of important deposits of native coal and iron constitutes a serious handicap to any extensive industrialization. In eastern Ulster, however, Belfast and vicinity are close to British supplies of these materials which, with local cheap labor, support a considerable industry there. Belfast is one of the world's important shipbuilding ports and the manufacture of linen is closely associated with it.

Flax is the characteristic crop and linen the characteristic product of Ulster. As compared with both wool and cotton, its preparation for spinning involves much more handwork. Northern Ireland is well adapted to its culture, while the cheap abundant labor without other industries competing for it favors linen manufacture. About Belfast the industry

is parasitic, as the men work in the shipyards and allied heavy trades, while the women and older children may supplement the family income by working in the linen factories. Since local production has for many years proved inadequate to supply sufficient fiber, most of that used is now imported from the Baltic states, Russia, Belgium, and Holland (Figs 103 to 105). In 1926 the export of linen from Northern Ireland was valued at over \$50,000,000.

In the absence of coal, the development of hydroelectric power is of special interest. The harnessing of the lower Shannon is under way, the project utilizing a total fall of about 100 feet. Power will be distributed to most of the Free State and the government hopes within the next 5 years to double the per capita use of current. The total output at present is about 90,000 horsepower, but extensions will be made as the market justifies.

FORESTS AND FISHERIES

Forests Largely Lacking.—Originally covered with deciduous forest the British Isles now rank among the lowest of any European countries in the proportion of their area under tree cover. Clearing for pasture

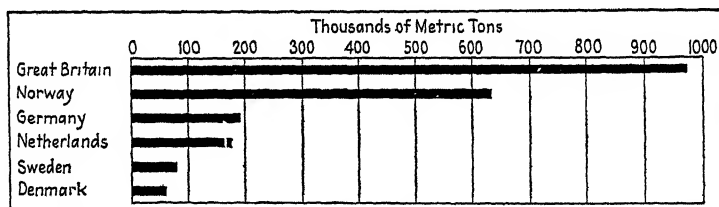


FIG 162 —Average annual production of fish in European countries, 1920 to 1924.

and for cultivation, for charcoal and household fuel, as well as for construction timber, has gone on until now only 1 acre in 25 is forested. Many of the so-called "forests" are really today practically without tree cover. The area in forest and the total wood consumption of Great Britain is about the same as that of Illinois, one of our prairie states. There is, however, a striking difference between them in their attitude toward reforestation. In spite of a population almost four times as great, Great Britain has undertaken to replant at the rate of 20,000 acres per year, while Illinois has not yet set out 200 acres of public forest. It is claimed that much of Scotland which is now open heath and moor could be made to yield a forest growth as good as that of Scandinavia.

Most of Great Britain's wood requirements must be met by imports, chiefly from the Baltic countries. In addition to miscellaneous uses, the mining industry requires a huge quantity of pit props and the printing industry requires a large import of pulp and paper (Fig. 114).

Fisheries an Important Food Resource.—The continental seas off northwest Europe are the world's most productive fisheries. Variations in depth and in character of the bottom, as well as seasonal movements of various species furnish a wide variety of fish, while the dense industrial population close by affords an almost unlimited market.

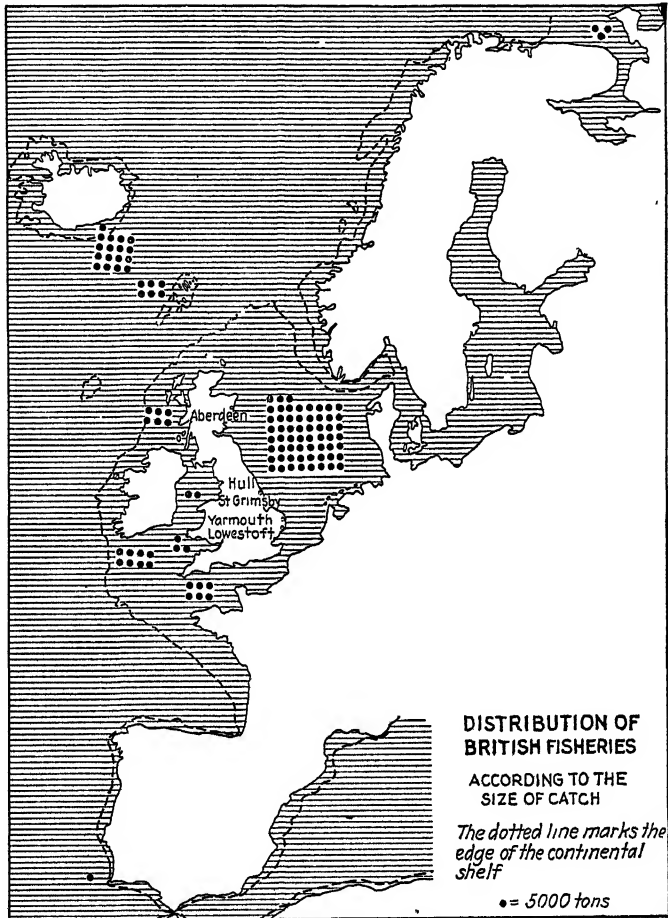


FIG. 163.—Only the landings at English and Welsh ports are shown. The dominance of the North Sea—especially the Dogger Banks, is apparent

The British Isles, most advantageously located with respect to these waters, rank among the three leading countries in value and quantity of catch (Fig. 162). The prewar British fishing fleet in number of vessels and in equipment was about equal to that of all of the other countries of northwestern Europe combined, while of those working in the North Sea, about 70 per cent were British. Their prewar annual catch averaged over a million tons with a value ranging between \$75,000,000 and \$100,-

000,000, although the cost to the consumer was probably three or four times that amount. The domestic market took less than half the catch. Not only is the per capita consumption (about 65 pounds) very high, but fish also constitute the only domestic food product of which Britain has a large exportable surplus (Fig 242). A fishing industry of such proportions is of manifest importance to a country otherwise so deficient in foodstuffs, as well as serving as a training school for British seamen.

The most productive areas are the North Sea and Iceland waters. These two together account for over two-thirds of the fish landed in recent years. The Dogger Bank, the most famous of the world's fisheries, is a submarine plateau of approximately 7,000 square miles submerged to a depth of about 120 feet. Located only some 60 miles east of Yorkshire, it is the chief factor in making all of the east coast ports of Great Britain important fishing centers, the operating bases for the fleets with exceptional facilities for handling and marketing the catch (Fig. 163). Each day at dawn, the world's most famous fish market—Billingsgate in London—is selling approximately 1,500,000 pounds of fish caught only a few hours before and rushed thither by special boats and trains.

With the increasing drain upon the North Sea fisheries, the catch has been declining and British fishermen are going farther and farther afield, the larger yield more than compensating for the greater distance. The British Government in the meantime is actively investigating the problem of maintaining the output.

TRANSPORTATION

Inland Transport Is Chiefly by Rail.—Since no part of the British Isles is far from deep water the importance of inland transportation is proportionately reduced. There is an excellent and comprehensive network of railways which has been supplemented by a rather extensive system of canals. These latter consist mainly of short links of varying dimensions, constructed chiefly to facilitate the movement of coal and iron. Unlike the canal system of Germany and France, that of Britain has been allowed to decay. Since the coming of the railways in the second quarter of the nineteenth century no new inland waterways have been constructed except that between Manchester and Liverpool, which is really an ocean ship canal. Similarly improvements have been few and traffic has become negligible. The small size of the country with short hauls and the topographic difficulties which require an excessive number of locks have all operated to minimize the importance of inland water transport. On approximately 3,800 miles of canals and inland waterways, there were carried in 1913 about 33,500,000 tons, but this by 1921 had declined to 19,300,000 tons.

The Channel Tunnel.—The proposition to construct a tunnel underneath the Strait of Dover connecting the railway systems of England

and France is one of many years standing. Though always favored by France it has never been supported by a British Government, the chief opposition arising out of military considerations. From an engineering and geological standpoint the plan seems feasible. Freight movement across the strait is insignificant, but passenger travel is large. While a tunnel would probably increase the former, its chief use would be for rapid movement of passengers, mails, and high-class freight. The water crossing is often rough and the time from Paris to London could be thus reduced by 1.5 hours over that required by train and boat. There is a growing sentiment in favor of the tunnel, with a tendency to give economic considerations precedence over the military, and it is believed that the larger amount of travel back and forth should also lead to a better Anglo-French understanding.

POPULATION

A Nation of Cities.—One of the important consequences of the advanced stage of development in the United Kingdom is the high degree of urbanization of the population. The nation is predominantly one of city dwellers, four out of every five live in cities of 10,000 or over, a proportion far in excess of that in any other country (Fig 92).

Previous to the industrial revolution the densest population was found in the great agricultural lowland of the south where soil, climate, topography, and accessibility combined to make the region the richest in Britain. Scattered market towns cared for the simple needs of the local farm folk. With the industrial revolution came the concentration of the population upon the coal fields where people and factories were crowded into large industrial centers about the mines. Each of the great coal basins gathered to itself a group of such cities, usually located at important nodal points upon the coal areas.

As a result of this shifting the manufacturing district of the north accounts for half of the total industrial and urban population of all England and Wales, one-fourth is in or near London, and the remaining one-fourth scattered. Such areas as London under the impetus of unsurpassed commercial and political advantages have continued to grow, but with these exceptions the great shifting from farm and pasture to the coal areas has been revolutionary.

Recent Changes.—There has been in recent years a noticeable trend toward the decentralization of industry. Excessive congestion with high costs in land and taxes together with the possibility of sending power long distances has tended to minimize, in part, the advantage of location immediately upon the coal. Commercial and other advantages in certain cases may outweigh that of fuel, and there are indications that industry and population are migrating away from it.

In view of what has been said, it is obvious that the population density of the different political units of the British Isles varies widely. Level topography, commercial accessibility, and, in particular, the presence of coal have all exerted a powerful influence on the distribution of people.

England with its propinquity to the continent and its preponderant share of both coal and fertile lowland has a population density of over one to the acre, a figure exceeded by no other country, and has in fact more people than all of the self-governing dominions of the Empire together. The majority of the Welsh and Scotch are concentrated in their lowlands which are also mineralized. Ireland, without coal and dominantly agricultural, has the most uniformly distributed population of all. The number of fairly large cities (50,000 or over each) in these units is a fair index of where the people live. Of the population of England and Wales, over half (56 per cent) live in such urban centers, in Wales the percentage is 41, in Northern Ireland 34, and in Ireland, as a whole only 14.

THE EMPIRE

The World's Greatest Empire.—In the short space of 150 years Great Britain has extended her control over about one-fourth of the land area and the same proportion of the population of the earth (Fig. 143). This is about $3\frac{1}{2}$ times as large as the French possessions and almost 5 times the area of continental United States (Fig. 142). The population density varies from less than 2 to the square mile in Australia to 390 in the United Kingdom. India alone accounts for about three-fourths of the total population of the Empire. Fortunately, the greater part of her possessions fall within the temperate zone and therefore are suited for white settlement. It is one of the greatest areas ever assembled under a single flag.

British Possessions Widely Distributed.—Unlike the territories of Russia, those of Britain are widely scattered with possessions in every continent and in every sea (Fig. 164). Over three-fourths of the population of the empire is, by ordinary travel methods, more than a month distant from London. Wellington now requires six weeks, but by a relay system of airplanes it is planned to cover the distance in one week.

Although a web of cables, wireless stations, and even of airplanes may bind the scattered segments together, the actual transport of goods is far more important than communication facilities, and in this necessity lies one of Britain's chief problems. Acquired primarily as sources of food and raw materials for her workmen and factories, as well as for markets for her manufactures, a large merchant marine protected by a great navy became a necessity. Furthermore to insure the safety of those routes, she has acquired possession of a vast number of strategic points along the main world highways. Many of these are little more

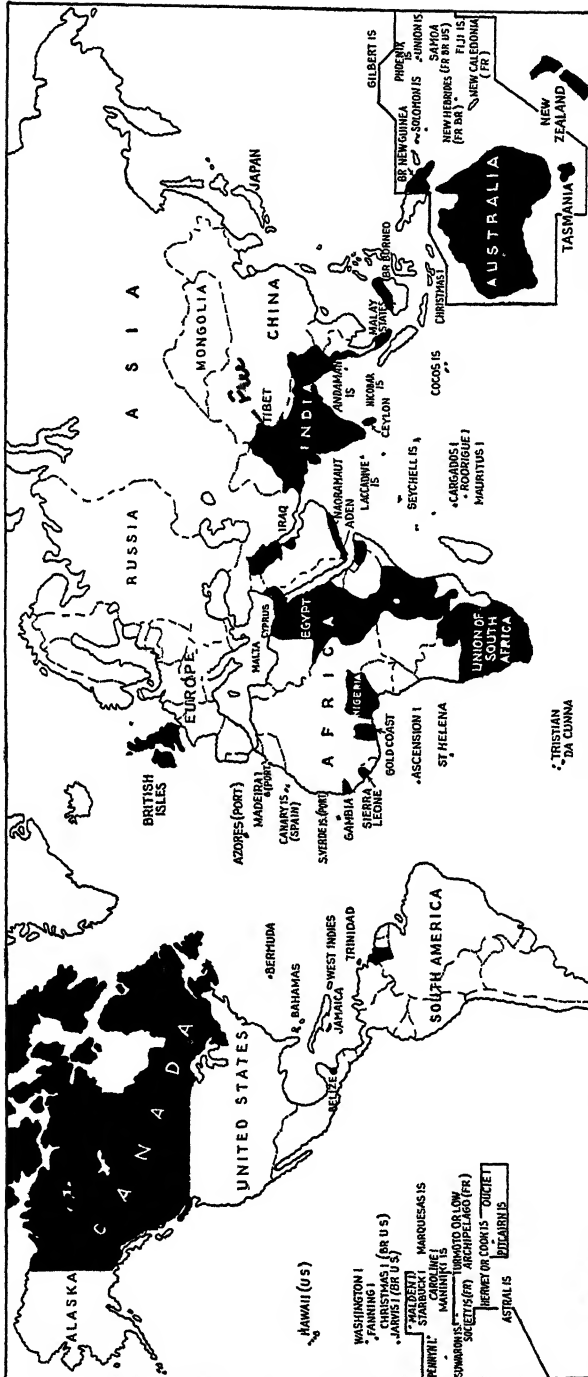


Fig 164.—Britain's “far-flung empire” Note the large proportion in the temperate zone (Courtesy of Current History, published by the New York Times.)

than fortified coaling stations, but in time of war they insure the operation of her fleets from a near-by base, no matter in what part of the world they may be located

Economic Relation of Britain to the Colonies.—British plans to “make England the workshop and her dominions, the farm” have been encountering much difficulty, especially in post-war years. The growth of manufacturing within her possessions, the difficulties in the British coal industry and trade, and the development of keen competition by her industrial rivals are a few of the major obstacles. Thus the trade of Canada with the United States is much larger than that with Great Britain; the rapid increase in cotton textile manufacture in India is cutting into the British market there, at least for coarse cheap goods; and India, Canada, and Australia are demanding protection for their own manufacturers (Fig 128). On the other hand imperial preference rests upon a differential¹ tariff as well as spiritual bonds, and the British merchant is noted for his dogged perseverance in a business wherein he has the advantage of long training. Past accomplishments give us confidence in England’s ability to solve her difficulties without being reduced to a second-rate power.

COMMERCE

Foreign Trade Vital to British Prosperity.—As the most highly industrialized of the important nations, Britain to an unusual degree

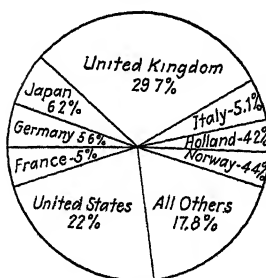


FIG. 165 — Merchant tonnage of eight principal countries, 1928

is dependent upon other countries for her food and raw materials, as well as markets for her manufactures (Figs 119, 120). About one-third of the total output of goods of the United Kingdom is destined for foreign consumption. With the exception of part of the iron ore and wool, practically all of her raw materials are from abroad. Similarly the annual domestic food production is estimated as sufficient to last only six weeks out of the year, so that cheap and efficient transport is of vital importance. To better insure a steady exchange of goods she has become the world’s chief shipbuilder, the owner of the largest merchant marine (Fig 165), one of the leading nations in foreign trade, the possessor of the greatest naval fleet, and the center of the most extensive colonial empire (Fig. 217).

¹ Preferential advalorem duties of colonial possessions given British goods averaged about 4 per cent before the war. In 1926 this advantage had been increased to 9 per cent. India and Newfoundland give none.

In 1928 of the total British foreign trade, that with the Empire accounted for 30 per cent of her total imports and 45 per cent of her exports.

Advantages for Commerce.—The British Isles enjoy their maritime supremacy because of

1. Their insular form with a much indented coast line giving a maximum contact with the sea. No part of the islands is over 70 miles from tidewater.

2. The large number of first-class harbors. Of those handling at least 1 per cent of British shipping there are 24, or 1 for every 5,000 square miles of territory. By way of contrast the United States has only 15 such, or 1 for every 200,000 square miles.

3. The attraction of the world's richest fishing banks off the coast which has encouraged a seafaring life.

4. Their location close to the center of the land hemisphere and at the doorway to the most highly developed part of Europe (Figs 126, 127). The Strait of Dover is like the constriction in an hour glass, traffic in either direction focusing to skirt England's shores so that the island lies at the terminus of the two leading world ocean routes.

Of imports, foodstuffs, semimanufactured goods, and raw materials, of which raw cotton is most important, make up a little less than three-fourths of the total value; for exports a somewhat larger proportion consists of manufactures, though coal constitutes by far the greatest tonnage (Figs 133, 134). Britain dominates the seaborne coal trade as Germany does that overland, and in 1913 at the peak of the coal industry, almost 100,000,000 tons were shipped either as bunkers or cargo (76,600,000 tons in 1929).

The United Kingdom's balance of trade is consistently adverse, the excess of imports over exports amounting in a normal year to over \$1,000,000,000. This apparent deficit is, however, usually more than balanced by the so-called "invisible exports," some of whose more important items are (1) banking, insurance, and various *entrepôt* activities of London and other English trade centers; (2) earnings of the British merchant marine for carrying the world's goods; and (3) returns in dividends and interest upon British investments abroad¹ (Fig. 145).

Entrepôt Trade.—Besides the importation of goods for her own use England, particularly London, is engaged in an active *entrepôt* trade. Its advantageous position, and the fact that it has long been the world's greatest financial and commercial center, as well as the capital of an extensive and widely scattered empire, makes it a convenient collecting and distributing point for many materials. Most of these, though not all, are from British colonies. They are in general non-perishable goods of high value and small bulk, often brought to London to be graded, standardized, stored, and exported in the quantity and grade desired by various markets. Although only about one-sixth of the total foreign

¹ Returns from British foreign investments in 1926 were estimated at over \$1,300,000,000.

trade of Britain, in 1913 this trade amounted to over \$500,000,000. Much of our tea, tin, rubber, and diamonds are imported from London, just as in earlier days Venezia, Lisboa, or Bruges performed the same service for areas widely scattered. Although this method of handling goods usually requires a longer journey, the services performed ordinarily make it cheaper or more convenient for customers, especially those located in small isolated regions. With the rapid growth of other cities, however, the multiplication of trade routes, and the disturbances due to the World War, London's relative importance as an *entrépot* center is declining.

LEADING CITIES

London.—This metropolis is located on the Thames, 65 miles from the sea at the first point where elevation on both sides of the stream marked the end of the tidal marshes that line the lower course of the river. Here, then is the first bridgeable point and here was constructed London Bridge, a converging point for traffic crossing the Thames. There are now 14 passenger bridges. Besides, the site is the head of navigation, and, in addition, the estuary faces two of the world's busiest rivers, the Rhine and Scheldt, which afford outlet to the most active part of the continent.

The tides of the Thames estuary have an exceptionally high range, the maximum being about 20 feet. While this movement helps to keep the river clear of silt, it necessitates building berths for the vessels that are enclosed by locks so that the water level within may be maintained constant. The very largest of the vessels must anchor at Tilbury, a sort of outpost for London, analagous to Bremerhafen and Cuxhaven, the down-river ports for Bremen and Hamburg.

Since the larger vessels must unload at Tilbury there has been a growing tendency for the large liners to stop at Southampton and forward their passengers and mails to London (80 miles) by rail from there. This port has the advantage of being on the direct route for steamers going up the channel, moreover its double entrance on either side of the Isle of Wight gives it a double tide, of particular value in these days of large ships.

Like New York, London is primarily a port, that is, commerce rather than manufacturing is its chief interest. At one time it was the principal shipbuilding port of Great Britain, but with the coming of steel ships, the industry shifted to the Clyde and Tyne where coal and iron are available, a movement analagous to that in our own country when New England was superseded by the Delaware.

Though lacking the advantages of coal, minerals, or other raw materials, London has remained the leading British port because of its great *entrépot* trade, long experience, knowledge of all kinds of goods,

financial facilities, and great consuming population. About 16,000,000 people live within 100 miles of its center, and in the last prewar year the port accounted for 37 per cent of the imports and 15.7 per cent of the exports of the British Isles. The relative decline in importance of London as an entrêpot is to be seen, however, even within Britain itself, where the industrial centers are more and more establishing direct commercial relations with foreign ports.

Liverpool.—Though second to London in total trade, Liverpool is the Kingdom's largest export port and a great entrepôt for raw materials and foodstuffs for the industrial district of England. It has the most important harbor on the west coast of Great Britain and a hinterland

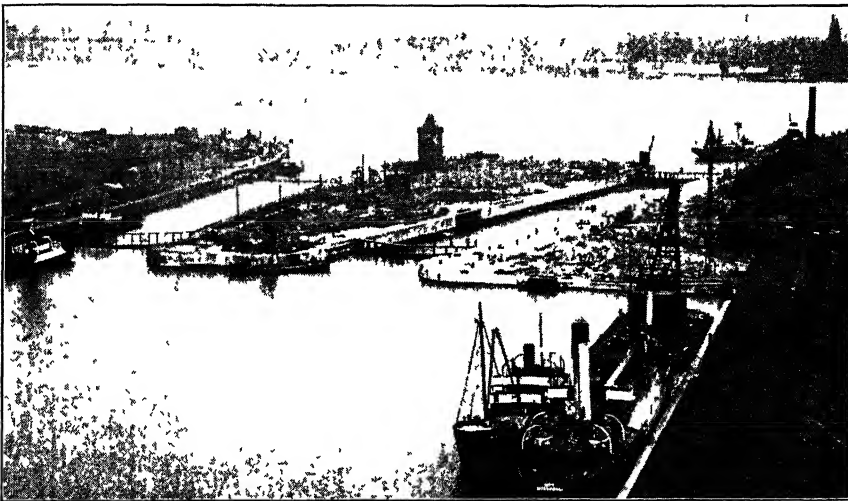


FIG 166—Port of Liverpool, Alfred Dock Entrance, Birkenhead. Note the lock chambers designed to surmount the difficulty associated with a wide tidal range (*U S Department of Commerce*).

which, though of limited size, is densely populated and highly industrialized.

Liverpool's growth has been intimately associated with that of the industrial development of the North of England and the Midlands. It is primarily a commercial rather than a manufacturing city, its chief interests being in the importation of raw cotton, wool, dairy products (from Ireland), and lumber, and the export of manufactures, especially cotton goods. It is the world's main cotton-trade center. Often termed the "liner port" because it has been the terminus of many important shipping lines, Liverpool's passenger traffic has been decreasing. The American restriction upon immigration and the advantage of Southampton and other channel ports for tourists because of their proximity to the

continent is resulting in the growth of the latter at the expense of Liverpool. Southampton is the leading passenger port, excluding cross-channel traffic, with 34 per cent of that trade of the British Isles in 1928, Liverpool having 28 per cent and London 18 per cent. In freight, however, Liverpool bids fair to remain second only to London. It normally receives about one-fourth of the imports and sends out one-third of the exports of the country. The enormous trade has demanded and warranted huge expenditures for harbor improvements (Fig. 166). The average annual expenditure for such work since 1909 has been \$4,000,000 for Liverpool, and for Manchester, since 1882, \$2,200,000 annually

Manchester in the midst of the Lancashire-Cheshire cotton district has been, since the construction of the Manchester ship canal, a keen

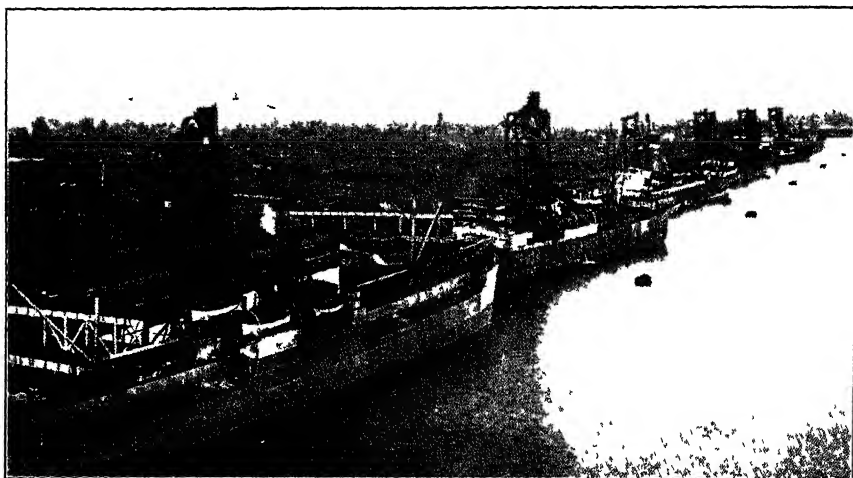


FIG. 167 —Coal hoists at South Dock, Newport Docks, South Wales coal field (Courtesy of Great Western Railway)

rival of Liverpool. The canal, built in 1894, is 35.5 miles in length and its minimum depth of 28 feet allows large ocean freighters to reach the heart of the cotton-textile area as well as a point close to the woolen district east of the Pennines. Hull, on the opposite coast, and Manchester, rank third and fourth, respectively, among the country's ports in value of foreign trade. Manchester has, however, never been able to wrest from Liverpool the premiership in the cotton trade.

Other Cities.—The ports of South Wales, the Tyne district, and those of the Clyde handle much coal, iron ore, and metallurgical materials. Cardiff is the world's leading coaling port; Glasgow ranks first in ship-building; Swansea is an important metallurgical city; while Hull is an outlet for the great wool-manufacturing region and, of late, also a rival of Marseille in vegetable-oil products.

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CHAPTER XII

FRANCE

France was among the first of the important countries of Europe to achieve national unity. During a large part of the ten centuries which closed with the battle of Waterloo in 1815, she enjoyed a position of preeminence among the nations of that continent. Napoleon's downfall marked Britain's succession to leadership to be followed later by the disastrous Franco-Prussian War of 1871, which allowed Germany to crowd France out of second place. For a century there has been a relative stagnation if not a decline in French power measured in terms of industry and commerce. Her prestige has been to some extent restored by the World War, but that she has been definitely outdistanced in material production by Britain, Germany, and the United States, is unquestioned. In her cultural and artistic accomplishments, however, France ranks second to none. Her goods have a world-wide reputation for their artistic merit and Paris is the fashion center of the world, while her contributions to literature, science, and invention are of the first order.

A Vast Colonial Empire.—France ranks next to Great Britain and Russia in extent of territory under one flag. In the seventeenth century she acquired vast possessions in America only to lose them in the hundred years following. With a revival of interest in a colonial empire in the nineteenth century, control was extended over great areas, especially in Africa, so that French territory is now found on all continents but one. Their combined population is considerably larger and their area is some eighteen times as great as France itself (Figs. 142, 143)

About nine-tenths of the area of the French colonial possessions are in Africa where they occupy about one-third of that continent. The real heart of the extensive holdings is in north Africa, *i.e.*, Algeria, Tunisie (Tunisia) and Maroc (Morocco). Likewise the least valuable of her extensive holdings is just south of these—the Sahara. The Sudan and equatorial Africa are at present of secondary importance. Madagascar, somewhat larger than France, and French Indo-China, about 50 per cent larger than the mother country, are the other extensive holdings.

Though superior to those of Belgium and Italy, French colonial territories are on the whole greatly inferior to those of Great Britain, since much of the land under French control is too dry or lies within the

tropics, while practically all of it has a population largely made up of unprogressive native races (Fig 168) North Africa, particularly Algeria, is the most promising In general most of the French colonies are regions of potential rather than of actual value Since the population of France is not increasing, they are looked to chiefly as contributors of raw materials and, in case of war, of man power.

PHYSIOGRAPHIC DIVISIONS

France is made up of several old massives about which are extensive alluvium-filled lowlands The Paris and Aquitaine basins of the north and of the southwest, respectively, are the westward extensions of the Great Central Plain, on their seaward margin lies Brittany, a part of the Northwest Highland belt; to the east is a chain of massives—the central plateau, the Vosges, and the Ardennes, beyond which lies still another narrow lowland, the Rhone-Saône-Rhine corridor In the extreme south and southeast the boundaries include part of the Pyrenees and the Alps-Jura mountain system

With all this great variety of relief, the plains are fortunately the most extensive, over one-half of the country having an elevation of less than 640 feet Second only in importance to this is the fact that the highlands are not continuous, but are interrupted by depressions which not only connect the basins with each other but also with the plains of adjoining countries and with the coast.

Upland Regions.—The upland areas are of moderate elevation. As compared with the lowlands, their soils are less fertile, the climate cooler and wetter, and the population more sparse Pastoral and forest industries rather than cultivated crops represent their chief interests

The Central Plateau.—Of the old massives, the central plateau in the southwest is the largest, occupying about one-sixth of the area of all France The general plateau level averages about half a mile in height and slopes to the west. Along the eastern edge is a fault scarp, the Cevennes, which descends rather steeply to the valley of the Rhone. A northeastward extension of the plateau forms a divide between the Saône-Rhone and the Seine drainage, a water divide (the Côte d' Or) so low that it has been easily crossed by railways and even a canal.

The plateau differs greatly in character from place to place. In the east, three coal basins along the margin make that section economically important; the fertile rift valleys of the Allier and the Loire in the northeast are highly productive; while those of the Garonne tributaries in the southwest are among the poorest areas in France. These latter are in the karst section locally known as the "Causses," where the herds of sheep and goats provide milk for the famous Roquefort cheese. About Limoges are the kaolin deposits from which is made the famous Haviland

china, and in the central part of the plateau is a volcanic area abounding in extinct cones, crater lakes, and mineral springs.

Most of the Central Massive is of crystalline rock, although sedimentary deposits overlap on the northwest and southwest. The soil from the igneous rock is generally infertile, better suited to rye and buckwheat than to wheat. The crystalline formation is impermeable, too, so that the heavy rainfall frequently produces floods. The drainage reaches all four of the chief rivers of France, and supplies the major part of the water of the Loire and the Garonne.

Other Highlands.—The Pyrenees and Alps, young folded ranges, are of economic interest chiefly as summer pasture lands and for their water for irrigation and power. The former are less efficiently utilized, and are much more effective as a climatic and commercial barrier than are the Alps. Not till 1928 did a railway cross this mountain frontier into Spain, a task completed then only by the use of sixteen tunnels.

In the east and northeast of France are the forested massives, the Vosges and the Ardennes. The latter, an extension of the Slate Mountains, is largely within Belgian territory; the former was originally continuous with the Schwarzwald but is now separated from it by the Rhine graben.

Brittany, rough, bleak, and windswept, resembles the rest of the northwest highland of which it is an outlier. Its infertile soils and rocky terrain with heavy rains and mild winters combine to favor extensive pasturage and forest at the expense of cultivated crops. The people, therefore, depend largely upon the sea for a livelihood, and the majority live near the coast. The natives, descendants of ancient Britons, are of Celtic stock, refugees from the British Isles, who in their harsh environment and comparative isolation have remained unusually conservative and economically backward. It is significant, however, that from Brittany's ports sailed some of France's most intrepid seamen and explorers, and this section has always contributed a disproportionately large share of her naval recruits.

THE PLAINS

The Paris Basin is the largest as well as the most important region of France. It occupies the northern quarter of the country, but its significance is far greater than its size indicates. This lowland lies at the intersection of several of Europe's busiest thoroughfares. As part of the Great Central Plain, communication is easy, either northward across the Low Countries or to the southwest into Aquitaine. To the southeast leads the Saône-Rhone corridor, the least difficult of all routes between the Mediterranean and northwestern Europe. Eastward via the Seine and Marne, the Lorraine gateway communicates with the Rhine, while

on the western margin lies the world's busiest ocean highway. Thus the commercial location of the Paris Basin is such as to have inevitably led to its possessing a great world mart.

Geologically, the basin consists of a series of sedimentary strata arranged like a tier of saucers, each smaller than the one below. The edges of these layers form a series of concentric cuesta escarpments, their abrupt slopes facing away from the center, their back slopes dipping gently toward the middle. Where well developed, these are important commercially in their effect upon routes and strategically as natural lines of defense against approaching invaders.

The major streams draining the basin are the Seine and Loire. These were originally tributaries of master streams whose submerged valleys now form the English Channel. The drainage divides which mark the rim of the basin are low, so that transportation routes have focused naturally upon the French metropolises.

Not only is this the richest agricultural region of France, but its commercial and industrial activities are of the first rank. Along its northern and eastern margins lie the coal and iron deposits and the most important French industrial zone. The natural advantages for transportation have been utilized by a vast network of highways, railroads, rivers, and canals, particularly in the north or industrial section. In general, it is the economic center of gravity of France, and the natural focusing of routes upon Paris explains in part the highly centralized government of the nation.

Basin of Aquitaine.—Aquitaine is the triangular lowland between the Pyrenees, the central plateau and the Bay of Biscay. Drained chiefly by the Garonne, it finds its main outlet via Bordeaux, although it communicates with the Paris Basin and with the Mediterranean-Rhone region by the outlets of Portou and Carcassonne, respectively. The region shows considerable variety of relief and consequently of economic development. Between the Garonne and the foothills of the Pyrenees is a large alluvial deposit—the Lannemezan Fan—whose deeply dissected surface makes transportation difficult except along the valleys. Since it is for the most part covered with glacial gravels, agriculture is seriously restricted.

In the southwest between the Garonne-Adour and the coast is a second region which was, at least originally, of still less promise. This area, the Landes, a century and a half ago was a sandy waste, unproductive, malarial, and scantily populated. The soil was not only infertile, but just below the surface was an impermeable layer of cemented sands. As a consequence rains turned the region into marsh; drought made it a desert. Furthermore the sand dunes bordering the coast moved continually inland destroying villages and forests. Through forestation of the dunes, thus fixing them in place, and by eventually draining and plant-

ing the rest of the Landes (Fig 169), the region was reclaimed and turned into a vast pine forest (Fig. 170) Naval stores and timber constitute the major products and a fairly dense, modestly prosperous population of 1,500,000 is now living in what was formerly a desolate waste. On



FIG 169.—The Landes, Mimizan Plage, top of shore dune with protective wicker work and planted with Gourbet grass. (*Courtesy of U. S. Forestry Service*)



FIG. 170.—The surfaced roads and well-kept trees of the Landes would do credit to many American city parks. (*Courtesy of U. S. Forestry Service*)

the northern border of the Garonne basin lies the valley of the Charente, a highly productive region known for its cognac.

The Garonne basin itself is fertile, climatically well favored, very productive, and the most densely populated section of Aquitaine. The high temperatures and abundant moisture favor corn production, but

it is, above all, the region of the grape with vineyards clustering thickly on the terraced slopes of the many valley sides. Bordeaux, its chief ocean gateway, is one of the world's great wine ports, and likewise an exporter of naval stores, timber, and foodstuffs. The upper reaches of the Garonne are joined to the Mediterranean by the Canal du Midi, the oldest of French canals. The Biscay coast is regular, offering poor harbors, and Bordeaux is really a river port. All of Aquitaine, however, with its mild climate and productive soils lacks the stimulus to vigorous effort characteristic of more northerly latitudes. Life is easy, and agriculture, lacking careful labor, has returns correspondingly small.

Rhone Lowland.—The Rhone Lowland is the long narrow valley between the central plateau and the Alp-Jura ranges. It is occupied by the Saône and lower Rhone and communicates with the Rhine Graben and the Paris Basin by means of the Belfort Gate and Cote d' Or, respectively. At the south it passes through the Mediterranean coastal plain which reaches from the Alps to the Pyrenees.

North of Lyon the valley of the Saône was originally a large lake. The lacustrine deposits of clay and sand though impermeable are mostly rich, and the central portion is a prosperous agricultural country. During the Pleistocene period, the Rhone Glacier advanced to the vicinity of Lyon, leaving, just north of that city a region of moraines, infertile and until recently, marshy and unhealthful but now reclaimed and very productive.

A short distance below Lyon where the Alps and central plateau approach each other, the valley narrows. The lower Rhone Valley was originally an embayment of the Mediterranean, filled in as the delta of the river advanced. Likewise on either side the deposits of gravel by streams from the central plateau and the Alps have built up the plains of Languedoc on the west and Provence on the east. West of Marseille the coast is low, sandy, and margined by lagoons, while to the east the Alps crowd close to the sea. Here between the mountains and the water's edge is the Riviera, Europe's most famous winter resort, where are to be found also the flower gardens, serving as a basis for the perfume industry.¹

The Rhone itself with its swift current and uncertain depth is better suited for power than for commerce. The delta is particularly difficult both for transport and as a site for a port. Marseille whose harbor has been so improved as to make it one of the best on the Mediterranean is about 30 miles from its mouth and is connected with the river above the delta by a canal, $4\frac{1}{2}$ miles of which are subterranean.² Since the

¹ The production of perfume and cosmetics is valued at about \$40,000,000 annually. Synthetic and artificial scents have not diminished the importance of the industry.

² The Marseille-Rhone Canal opened in 1916 has as a link one of the most remarkable tunnels in the world. It is 72 feet wide, 10 feet deep, and $4\frac{1}{2}$ miles long.

current along the coast moves from east to west, Marseille is little troubled by silting.

Corse.—About 100 miles to the south of Genova lies Corse, politically French but geologically, racially, and linguistically Italian. Economically it is one of the most backward sections of France. Its soil is fertile, yet it imports foodstuffs; its rocks are mineralized, yet the deposits remain untouched. Transportation either by rail or water is entirely inadequate. Typical Mediterranean crops of wheat, wine, chestnuts, barley, oats, and olives are the main crops. About one-fifth of the island is forested and provides tanbark, briar root for pipes, lumber, and some cork.

A HIGHLY FAVORABLE CLIMATE

A country made up largely of plains and lying upon the lee side of the broad Atlantic, France has a climate predominantly marine. The oceanic influence is naturally less pronounced, however, than in Britain, which is only about one-half the size and insular rather than continental. While, then, France as a whole is mild and damp, these characteristics are modified with increasing distance from the Atlantic or with variations in relief

The Atlantic coast, especially Brittany, has the most pronounced marine characteristics. Here both temperature and rainfall are remarkably equable so that there is little change from one season to another. Frost is unknown, but summers are cool and it rains on the average half the days of the year. This is the land of orchard and pasture rather than vineyard or wheat field.

Eastward in the Paris basin seasonal differences become more marked, although the rainfall is light. Here cereals, especially wheat, do well, as does also the vine in favored localities. Near the German frontier hot summers and severe winters are the rule, although the greater elevation causes a heavier precipitation in winter.

In the far south of France including the Rhone depression as well as the plain bordering the sea, the climate is typically Mediterranean. Almost enclosed by mountains on west, north, and east the influence of the Atlantic is negligible. Abundant sunshine and high temperatures prevail, but the outstanding characteristic of the climate is the long, dry, often entirely rainless summer. Winters are usually very mild, although occasionally a cold dry north wind, the mistral, sweeps down the Rhone Valley. In the extreme southeast the Maritime Alps crowd close to the sea. Here between these two protectors is the Côte d'Azur, the Riviera, a narrow fringe of coast whose delightful climate and magnificent scenery have made it one of the world's most famous winter resorts.

Mediterranean France as a land of summer drought favors only such vegetation as can withstand several months of scorching heat and aridity.

This is the region of stunted forests and dwarfed shrubs, of the evergreen with its thick leathery leaves, and of such crops as the olive with its shallow though extensive root system, the vine with its deep penetrating roots, and the mulberry. Irrigation is extensively practiced, extending

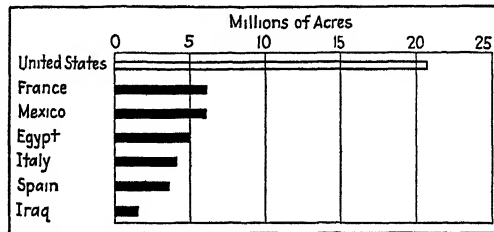


FIG. 171.—Irrigation in selected countries (U. S. Department of Commerce)

the range of crops as well as increasing the yield. As a whole the irrigated acreage of France is estimated at 6,000,000 acres, the highest of any country of Europe (Figs 171, 172).

Climatically, the region of Aquitaine is intermediate in character between the Atlantic and the Mediterranean. It possesses the high

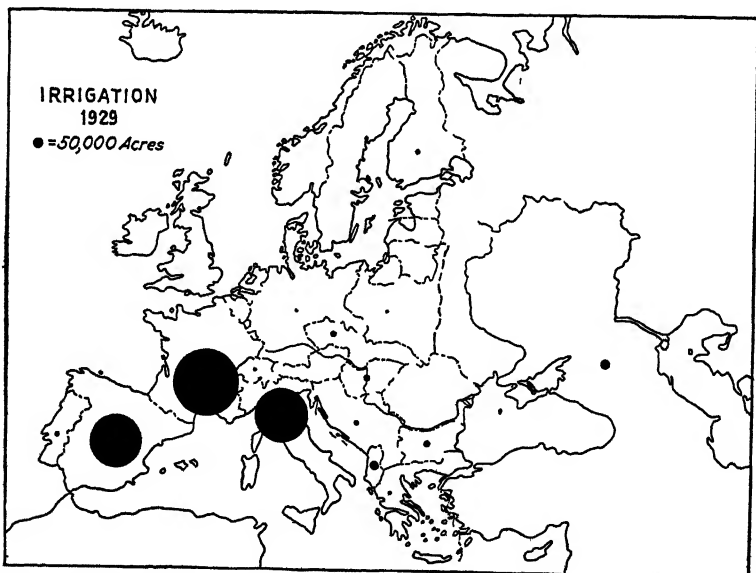


FIG. 172.—Of the extensive tracts of irrigated land of Europe, over 90 per cent is accounted for by France, Italy, and Spain. (U. S. Department of Commerce)

temperatures of the latter, but the all important summer rainfall of the former. Thus favored, it is a land suited to forest and luxuriant native vegetation as well as crops. Unfortunately such a combination of heat and moisture is not so stimulating to human effort. Considering the

size of the country, however, the climate of France is, in general, exceptionally favorable to animal and plant growth as well as to a comparatively high degree of mental and physical activity.

Agriculture.—France provides a natural setting unusually favorable for agriculture. Of the total area, practically none is rendered unproductive by adverse climatic conditions and only little by roughness of topography or sterility of soil. Only one-fifth of the whole surface is unproductive and the soils average high in natural fertility—much higher than those of Germany in their original state. Not only are conditions favorable for a large agricultural output, but there is a sufficient variety to produce a great diversity of crops. The country extends from the belt of hardy cereals, root crops, and animal industries of north Europe well into the vine, corn, olive, and mulberry sections of the Mediterranean. All in all, the nation possesses the fundamental resources for a well-rounded system of agricultural economy.

It is not surprising then, that this activity has been of primary interest to the people, more so than to any of the other important countries of northwestern Europe. Over half of the population is rural, and of all the male population gainfully employed in prewar years, 40 per cent were engaged in farming. In contrast with this, note Germany with a proportion of 28 per cent or Britain with but 10 per cent, while even the Netherlands has only 26 per cent so occupied. By and large, the agricultural population is an element of great stability and the better balanced character of the nation's activities tends to insure against severe depression or widespread unemployment.

Land Ownership.—France for centuries has been a country of small farms operated by peasant proprietors. Only 30 per cent of the holdings are rented, an unusually small proportion for western Europe. Land ownership is held in high esteem, which, together with some unfortunate inheritance laws, has led to an excessive subdivision of the land, 85 per cent of the holdings are less than 25 acres in extent, each consisting of one or more parcels of land scattered about the villages in which most of the farmers live. Thus in 1882 approximately 5,000,000 property owners possessed an average of about 22 parcels of land each, and conditions have changed little since then. This relic of medievalism is a serious handicap to efficient cultivation of the soil and to the use of machinery, but it is an old institution difficult to change. In general, the French farm is not organized on a commercial basis but rather as a home for a family whose food wants it is expected to satisfy. The operating capital is small and the great majority have little net surplus for market. Cooperative societies have not yet progressed to the extent to be found in Germany, Switzerland, or Denmark.

Character of French Agriculture.—As compared with Germany, French farming is more intensive but less scientific, more hand labor is

used but less machinery and less fertilizer. Similarly, agricultural education in France has lagged. In 1910 Germany, with about the same area, had twenty-five times as many agricultural students, and little Belgium, although primarily industrial, had twice as many pupils in her agricultural schools as did all of France. The French peasant farmer remains individualistic and extremely reluctant to change. Farms are seldom sold but are passed on from generation to generation in the family, forming an unusually strong tie between the farmer and his plot.

Yields are, on the average, much higher than in the United States but lower than are usual in northwestern Europe. The productivity per cultivated acre is 35 per cent higher in Germany on the east and 80 per cent higher in Belgium on the north. Similarly, the output per farmer is about 30 per cent higher in each of these two neighboring countries. In addition to the factors considered above it should be noted that the pressure of the population upon the land is less in France than in most European countries.

For some time, changing trends have been noticeable in French agriculture, many of which were accelerated by the war.

1. One of these tendencies is that common to many countries, the shift of population from rural to urban communities. In France this is especially serious, since, with a total population largely static, it leaves agriculture to contend with a labor shortage. Immigration has helped to fill the gap, the movement in post-war years due to the serious loss of man power in the war being particularly large. Thus in the period 1901 to 1911 the foreign-born population of France numbered about 400,000; in 1921 to 1926 it was over 1,000,000. About one-third of the immigrants are engaged in agriculture.

2. Another trend is seen in the limiting of cereal production in favor of grass, root crops, and forage for animal industries, a change characteristic of northwestern Europe, and carried farthest, perhaps, in Denmark and for the same reason. Moreover, cheap cotton from abroad has lessened the interest in raising wool, as well as hemp and flax, while cheap meats from newer lands have forced the emphasis upon dairy rather than meat production. French agriculture has, however, responded to this movement much more slowly than has that of Germany. Thus in the 30 years prior to 1914, the latter increased her live stock five times as much as did France, without sacrificing her cereals, which in the same period almost doubled as compared with France's increase of only 4.7 per cent.

Animal Industries.—Like most of the other activities of the country, this consists of a large number of small undertakings, the great majority of the farmers maintaining a few head of stock as one phase of their diversified farming. Cattle are kept chiefly for draught or dairy purposes, sheep for wool, meat, and milk. The sale of the animals and their

products is to small operators who slaughter and retail the products. The huge packing plants familiar to the United States are unknown.

Of producing regions, the most important is that of the wet, cool, northwest coast from the Gironde to the Belgian frontier. The central plateau, ill adapted to cultivated crops, also has many cattle. Swine and horses show much the same distribution, while sheep are found principally on the chalk ridges of the Paris Basin, in the central plateau, and in the Pyrenees and Mediterranean districts. It was estimated at the opening of the war that 70 per cent of the cash income of the middle-sized farm was from animals and animal products, and 10 years later French herds had an estimated value of \$1,500,000,000 their products, \$840,000,000. In 1914 permanent grass and pasture together with forage crops occupied about 45 per cent of the productive land, its distribution naturally corresponding to the regions of animal production.

In general, prewar France was almost self-sufficing in foodstuffs, but present indications are that she will become less and less so. In view of what Germany has accomplished, France, with her more favorable soil and climate, could more than double her 1913 output of cereals and live stock. As it is, she has, on an area about one-fourteenth as large as that of the United States, grown almost food enough for a population about one-third as great.

Cereal Production.—France ranks high as a producer of wheat—next to Russia among European nations—and in no other country of the continent does this grain play so important a role in the nation's agriculture. Almost one-eighth of the entire territory is planted to wheat, which occupies as great an acreage as all the other cereals combined. The country is likewise one of the world's leading consumers, 50 per cent more per capita than in the United States, itself predominantly a nation of white-bread eaters. Though almost self-sufficing, a small import has been necessary to meet this large domestic demand.

Although wheat is raised throughout the country, the Paris Basin is the chief producing area, accounting for about one-half the total, with Aquitaine next in importance (Fig. 173). While oats and sugar beets compete with wheat for the rich loams of the plains, a high protective tariff to stimulate home production has extended wheat growing also onto lands of inferior fertility. Thus the average yields, while about 50 per cent higher than those of the United States, are low for western Europe. In the north where machinery, fertilizers, crop rotation, and, in short, modern methods are used, yields are higher, while those in the south are low. Acreage has, however, been declining for many years, and France is likely to depend more and more upon importation from newer lands.

Oats, second to wheat in importance, are found chiefly in the north, while corn is raised in the southwest where temperatures and moisture

are more favorable. Since the cultivation of the latter is indifferent, yields are low. Northward the corn finds the temperatures too cool,

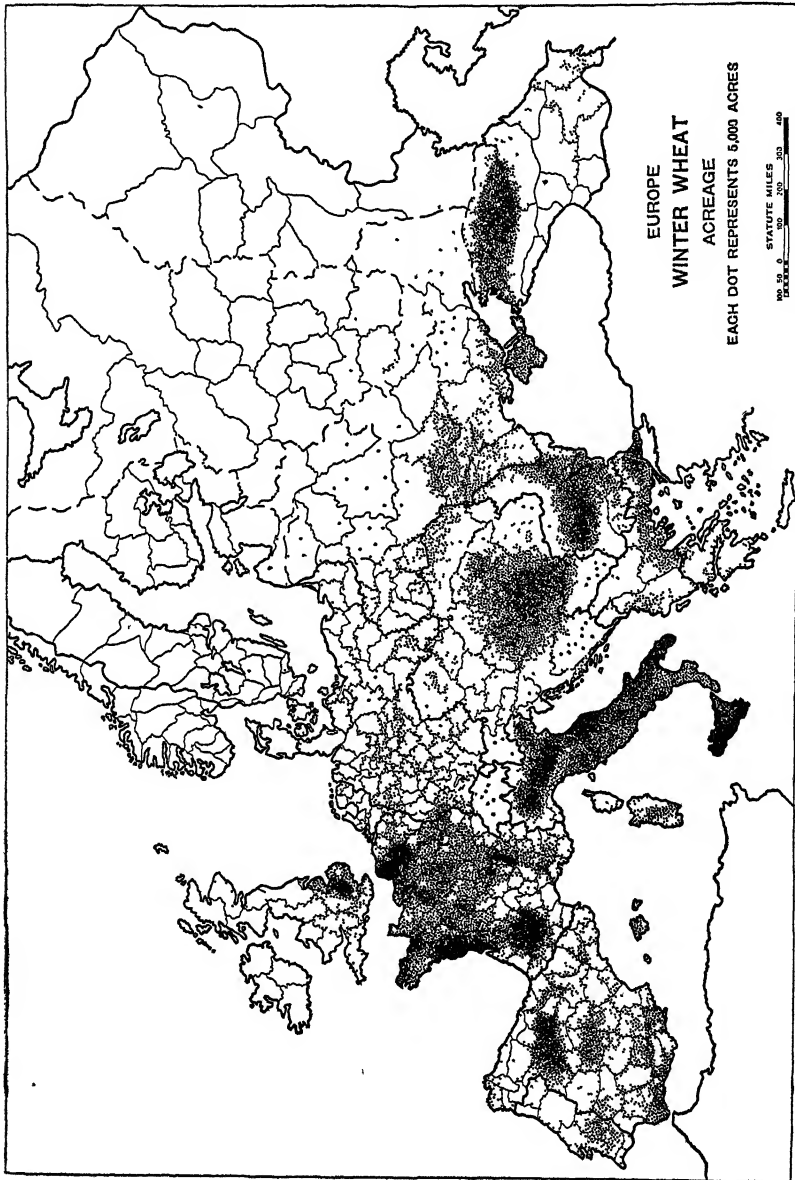


FIG. 173.—France ranks next to Russia among European countries as a producer of wheat. In normal years it has been almost self-sufficing, though becoming less so (*U. S. Department of Agriculture*).

while eastward it is too dry without irrigation, so that outside of this very limited section in the southwest, it is not an important crop.

The rye areas are, in general, complementary to those of wheat, confined mostly to the central plateau and Brittany, where poorer soils,

rougher topography, and a cooler moister climate are poorly adapted to wheat growing. Rye occupies a distinctly inferior place in the diet, the per capita consumption averaging only about one-eighth that of wheat.

The World's Chief Wine Maker.—France is the leading wine producer of the world, the grape ranks among her most valuable crops, and in prewar years wine was her chief export. While the area devoted to the vine is less than in Italy and is very small as compared with wheat, it is the characteristic agricultural product as silk is the characteristic textile. The quality of wine depends so much upon the way in which it is made that it seems peculiarly adapted to the Frenchman's love of skill and his taste for the artistic. Wine is the national drink, vying with bread in its importance in the diet. The per capita consumption is enormous—over a barrel a year. The wines are mostly light, *i. e.*, small in alcoholic content.

Successful vine growing is peculiarly dependent upon soils, climate, and exposure, so that slight variations in these natural conditions result in marked differences in the product. As a consequence the map of vine distribution shows a "spotty" appearance with production concentrated upon the most favored areas (Fig 174). The long hot summers of the river valleys in central and southern France make it the agricultural speciality there, while contrary conditions exclude it from the north and the northwest. Culture is concentrated in four or five general districts, three of which are identified with the great river basins of the Loire, the Garonne-Gironde (Bordeaux) and the Saône (Burgundy); a fourth, occupying the western Mediterranean (Midi), produces over half of the total. Within all of these districts are subdivisions, each with its own characteristic product. The famous champagne is produced close to the northern limit of the vine on the chalk escarpments east of Paris where some 35,000 acres of south-facing slopes are covered with highly prized vineyards. In addition much wine is shipped into this section from other regions to be reworked in its famous cellars.

The peak of French wine production was reached in 1875 with an output of about 1,760,000,000 gallons, the yield of some 6,040,000 acres of vineyards. But by that time, the phylloxera which had appeared five years earlier had spread so that each successive crop was reduced until the output reached only about one-sixth that of the peak year. It was a national disaster, and poverty forced large numbers to emigrate. Relief was finally found by importing roots of native American grapes and grafting upon them the European varieties. Although production has again risen it has never fully recovered, the best recent years having about three-fourths that of the peak production of 1875. With the curtailment of foreign markets the industry seems likely to decline. Vineyards now occupy about 3,500,000 acres, a smaller area than is devoted to potatoes. The crop varies much from year to year, depending

upon the ravages of pests and the weather conditions. In addition to wine there is produced from French and north African wine casks some 10,000 tons of argols annually from which cream of tartar is made

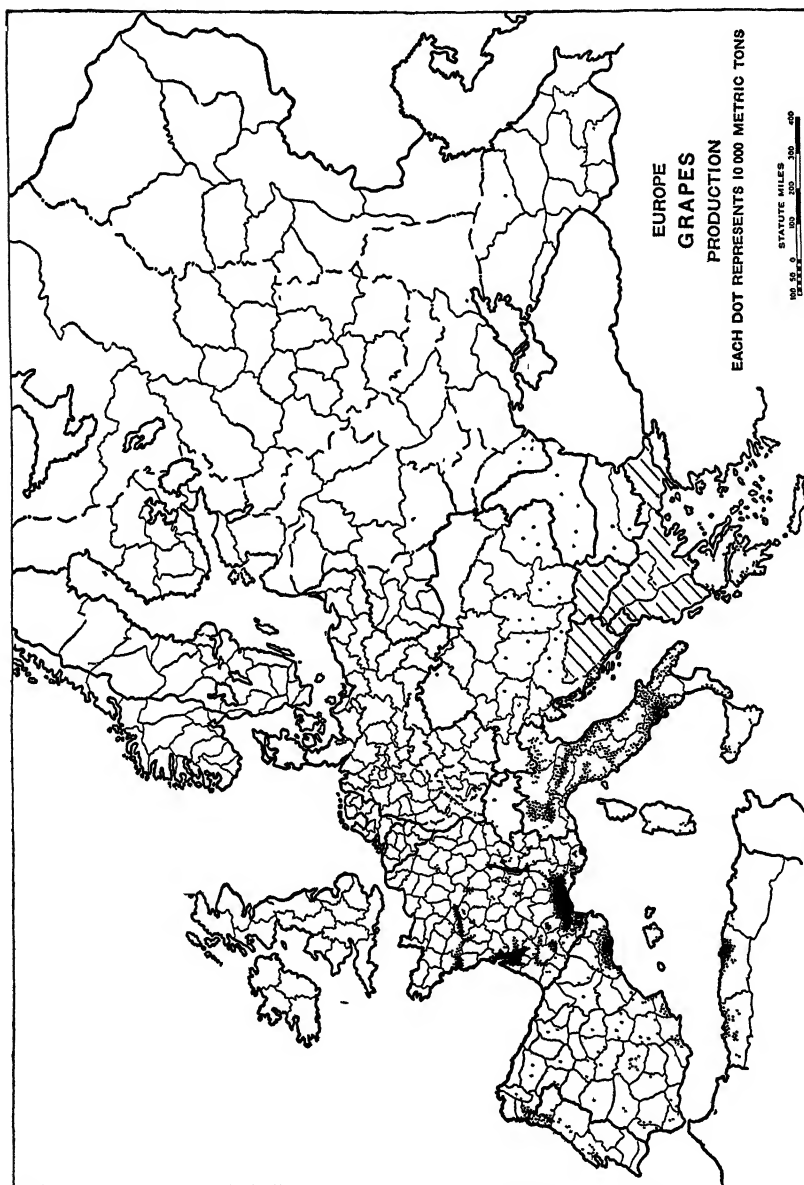


Fig. 174.—The world's principal wine producers Italy produced about twice and France about three times as much as Spain from 1921 to 1925 (*U. S. Department of Agriculture*)

Nut Crops.—Like the olive, nut crops are far less important than in Spain or Italy, but France is the leading world producer of English

walnuts. The average annual export of 50,000 tons passes chiefly through Bordeaux.

THE POWER SITUATION

In power resources France occupies an intermediate position among European states. Its output is considerably less than that of Great Britain or Germany, the two ranking countries, but with these two exceptions is far greater than that of any other country on the continent. Measured by her needs of fuel for the exploitation of her great iron-ore deposits, she is seriously deficient in coking coal. England had twenty times and Germany twenty-three times as much coal reserve as prewar France. The latter had less than 2 per cent of the total for the continent and was normally dependent upon imports for about one-third of her coal needs. During four years of war her chief coal-producing mines

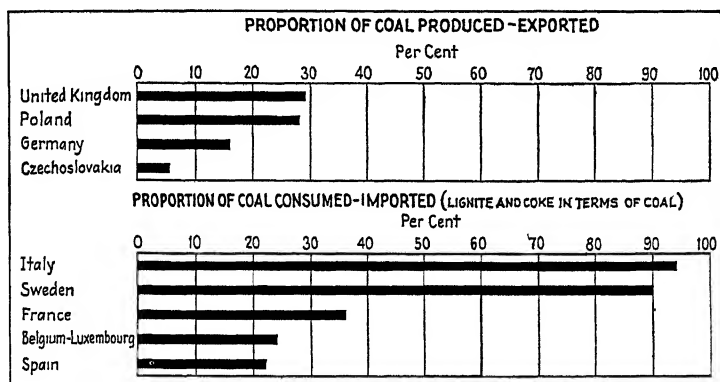


FIG. 175—The balance sheet of coal in some of the leading European countries in 1925.
(U. S. Department of Commerce)

were in the hands of Germany, and, after their destruction upon the retreat of the invaders, did not, until 1925, regain the prewar normal output. As part compensation she has been assigned the Sarre basin, at least until 1935, as well as reparations coal and coke from Germany. A small deposit, an outlier of the Sarre, was also acquired with the return of Alsace-Lorraine, increasing the coal resources by about 20 per cent. If the Sarre remains hers, the total reserves will be approximately double those of 1914.

Chief Coal Deposit Is in the North.—Coal is found in some 50 separate sections of France, yet two-thirds of the total output is from one of these deposits. With respect to the three great producing areas of Europe, (1) the British, (2) those centering about the Ruhr, and (3) the Silesian, France occupies most of the space between the first and second (Fig. 65). On the north and east she shares to a modest degree the outlying

portions of the deposits which center at the Ruhr. As we have seen, the most important field is the one in the far north, which continues eastward along the flank of the Ardennes, across Belgium, and into Germany. The Belgian section constitutes the basis of that country's industrial development, but the German portion, called the Aachen field, is but little used (Fig 200). The French share of this deposit supports the industrial zone across north France and supplies some coke for the Lorraine iron ores. While of fair coking grade, it is expensive to mine. The beds are deep, averaging 1,200 feet, steeply inclined, and the seams rather thin.¹ The output per person employed is considerably lower for France than for either Britain or Germany.

The other fields are widely scattered and of secondary importance. On and about the Central Massive are small deposits—the best near Lyon and Le Creusot. A small field, an outlier of the Sarre, is in Alsace-Lorraine. With the acquisition of the latter and the Sarre came a vast amount of industrial equipment as well as the great iron ore deposits, so that the added need for coal has been far greater than the fuel acquired, and it seems doubtful if the industrial demands of present-day France and the Sarre can be met by local production. Expansion in power output is more promising from hydroelectric sources than from coal. The Sarre basin, described in connection with the Ruhr-Lorraine industrial area, is a most welcome addition to the country's coal resources. Although its poor coking quality limits its metallurgical use, its proximity to the great ore deposits of Lorraine and the varied industries associated with that region make its possession a valuable asset.

With Alsace, France acquired the Pechelbronn petroleum deposit, located 18 miles north of Strasbourg with an annual output of some 70,000 tons of oil. This is only about 2 per cent of the annual French consumption and there seems little prospect of increasing it much beyond this figure.

Abundant Water Power.—Deficiency in coal and oil is in part compensated for by an unusual endowment of water power. Among European countries France ranks second only to Italy in the capacity of her hydroelectric plants—and only the Scandinavian countries and Russia have a larger potential supply of "white coal" (Fig. 176). France had more water power developed in 1926 than both her great industrial rivals, Great Britain and Germany, together. The World War proved a powerful stimulus to its development, since the bulk of the country's fuel supply as well as the chief industrial area lay in the northern frontier where it was most vulnerable. For four years most of the coal mines and much of the industrial section were in the hands of the Germans, so that water-power development was pushed to the limit to replace the lost

¹ The cost of this coal, the cheapest in France, was, in 1913, \$4 per ton at the mine; German Ruhr coal was \$2.80 and United States coal under \$1.25 at the mine.

coal. At the same time many industries shifted from north to south to benefit by the new power supply as well as to be in a safer position. The developed capacity doubled between 1910 and 1918 and had trebled by 1928. In proportion to their water-power resources the French are actually using more "white coal" than are we in America.

It should be noted that the distribution of the water power and coal is complementary. One-half of the total potential hydroelectric power is in the French Alps, the rest in the Pyrenees and central plateau region, all scantily supplied with coal.

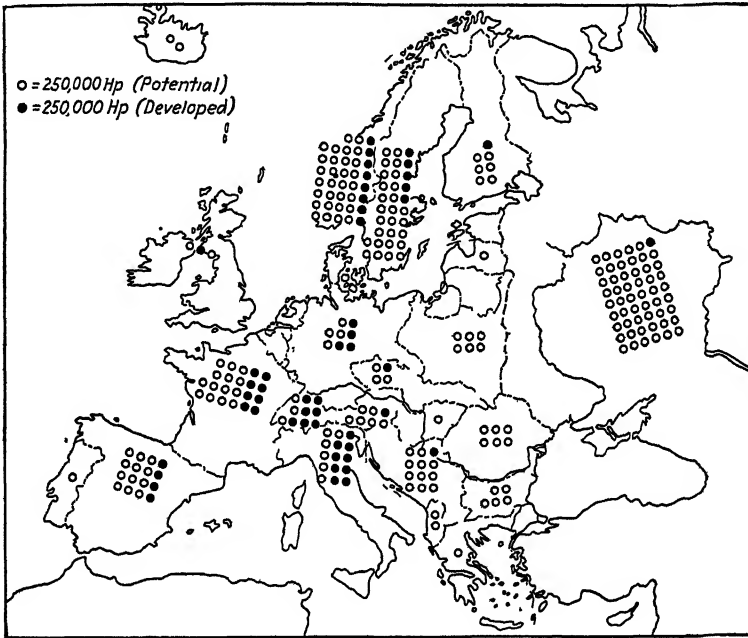


FIG. 176 — Compare with Fig 156 and note that the leading countries in coal reserves are not the principal possessors of water power (Russian water power includes Asiatic territory) (U S Department of Commerce)

The plans for hydroelectric development now being gradually carried out contemplate electrification of France, with the exception of Normandy and Brittany, the energy to be chiefly derived from "white coal." The post-war dearth of capital and labor and the large investment necessary for exploiting water-power sites have served to delay the execution of the original plans. By 1927 less than one-half of the communes of France were electrified. Rising living standards, however, a better appreciation of the benefits of electrification by a peasantry characteristically conservative, the advantage of electric over direct steam power and the ease with which it may be subdivided and so adapted to scattered,

small-scale production typical of French industry¹ have all served to stimulate development. The French Government hopes also by rural electrification to increase the attractiveness of country life so that the drift to the cities will be checked.

The chief use of electricity in France has been for power and for light. Electrochemical and electrometallurgical industries have had only a limited development, aluminum being the largest single product of the latter, although over one-half of the bauxite mined is still exported as ore. Railroads are being electrified, but much more slowly than in some other countries bordering the Alps.

Water Power Subordinate to Coal—All in all, water power still plays and in all likelihood will, for some time to come, continue to play a minor role in the production of power in France. The total hydro-electric energy output in 1926 was probably equivalent to not more than 10,000,000 tons of coal, and since a considerable part of the current is lost in transmission, it has a replacement value far below that. As with Italy and Spain, while its increased use has not served to diminish the consumption of coal, it has added convenient energy for power and light in regions previously without it. If French water power were all developed it would theoretically be more than equivalent to the coal imports. In 1923, 46 per cent of all the electricity produced in France was from "white coal," as compared with 35 per cent in the United States. The per capita use of current in the latter was about $2\frac{1}{2}$ times as much as in the former.

INDUSTRY

Industry Secondary to Agriculture.—Though a very significant feature of French economic life, industry is still secondary in importance to agriculture. In post-war years 50 per cent more people have been engaged in farming and fishing than in manufacturing, and the urban population though increasing is still less than the rural.

Industrial Development Slow.—The industrial revolution which transferred much of the population of northwestern Europe from the farm to the factory has operated more slowly in France than in Britain, Belgium, or Germany. Thus while in 1927 only 28 per cent of the working population of France were employed in industry, the corresponding figures for England-Wales were 40 per cent, the same for Belgium, and for Germany in 1925, 38 per cent. Modern industry, with its large-scale production of standardized machine-made goods so common in the United States and developed to a considerable degree in England and Germany, is not typical of France. The per capita consumption of power and of

¹ *E.g.*, lace making in the Auvergne, wood carving in the Vosges, and glove making at Grenoble.

machinery is lower and the industrial units are markedly smaller than those of her rivals.

The country is, above all, one of small undertakings. In 1921 over 94 per cent of French manufacturing establishments employed only from 1 to 20 wage earners each. French manufactures are, nevertheless, world famous for their artistic qualities, products involving much skillful craftsmanship, good taste, and individuality but little mechanical processing—luxury products rather than staples. Wines and jewelry, perfumes and cosmetics, lingerie and laces, fashionable gowns and millinery are typical.

The retardation in industrial development is in part due to the scarcity of coal, the mainspring of modern manufacturing. In part it is also probably a matter of temperament. The Frenchman is highly individualistic; he prefers to work alone in his own little shop rather than to submerge himself in a large organization. The World War, however, speeded up the industrialization of France. For one thing, an acute labor shortage forced the larger use of machinery; again, the destruction of a large part of the principal industrial region led to post-war replacements with modern equipment, as well as to the extensive development of water power in the south, the urgent demand for many products formerly imported spurred French scientists and industrialists to action during the war; and, finally, the acquisition of Alsace-Lorraine brought with it iron ore, potash, and coal, as well as a large amount of industrial equipment. As a result of these various forces there has been in France a post-war industrial trend much more pronounced than that in Germany or England, and about on a par with the changes in the United States. But, it is rather a case of "catching up," at least to a degree, with her industrial rivals who have been advancing for decades, while French industry stagnated.

Industry Chiefly Concentrated in the North.—The geographical distribution of industrialized regions in France shows marked concentration in certain sections (Fig. 177). The areas of most intensive development make a broad belt along the Belgian-German frontier and three small districts in the southeast. Two other small sections about Bordeaux and Nantes have been developing rather rapidly since the war but have not yet equaled these others.

The major manufacturing section—the northern zone—is continuous with a similar band in Belgium and Germany. It is the region of coal, iron, and potash and is linked by a network of canals and railways with the coast on the west, with the abundant labor supply of Belgium on the north, and with the industrial section of the lower Rhine.

Other Raw Materials.—Aside from iron ore, potash, bauxite, and kaolin, raw materials are limited to those of an agricultural character: beets for sugar, barley for brewing, wheat and rye for milling, a little

local flax and wool for textiles. There is considerable coal and water power, although coking coal is imported from the Ruhr. Except for the minerals named, raw materials are either lacking or deficient, but these, as well as world markets, are made easily accessible by an efficient transportation system. The industrial areas of the southeast at the margin of the central plateau are close to the coal deposits as well as to water power. Marseille also receives considerable coal from England.

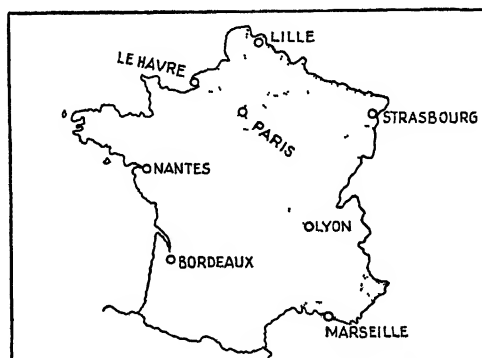


FIG 177—Distribution of agricultural and industrial areas in France. Shaded areas are those in which over half of the population are engaged in "extractive, transformative and shipping activities"; the unshaded, in which over 50 per cent are engaged in "agriculture, fishing, and forestry." (Courtesy of Ogburn and Jaffe, and Columbia University Press)

TEXTILES

The Leading Industry.—Textiles and clothing constitute the chief items of French manufacture, employing, even as far back as 1906, about 2,500,000 people, three times the number of workers in metals, and using one-fifth of the total industrial power of the nation. The French textile industry is composed of relatively small individual units and is thus better adapted to producing a great variety of specialty goods than to quantity output. Textile fibers represented 40 per cent of the imports of all raw materials in 1928, and textile manufactures 43 per cent of the export of all manufactures. Although silk has been the most valuable of all export items, fine French cottons and woolens have a world-wide reputation. These latter two are centered chiefly in the northern industrial zone, the silk in the south with 70 per cent of the total about Lyon, the leading European silk-manufacturing city. Mediterranean France, including the lower Rhone, has long been a producer of raw silk, although only 4 per cent of the nation's needs are now supplied from domestic cocoons, the balance coming from Italy and the Far East. Similarly, foreign lands must be depended upon now for all of the cotton, about six-sevenths of the wool, and over two-thirds of

the flax and hemp. France, the original home of rayon manufacture is now outdistanced by both Italy and Britain. The industry is much more decentralized than the other textiles, being located wherever adequate labor is available.

As a result of the war about 30 per cent of the textile plants of France were destroyed or dismantled, necessitating much rebuilding. This new and modern equipment together with the addition of Alsace-Lorraine, which added upward of one-fourth to the cotton and woolen plants, has placed the country in a much better competitive position for world trade than before. Based upon spindle capacity, France now ranks first in silk and third in cotton and wool among European countries.

METALLURGICAL INDUSTRIES

Iron and Steel Output Limited by Available Coal.—As the possessor of the great Lorraine iron ore field, France actually owns about 35 per

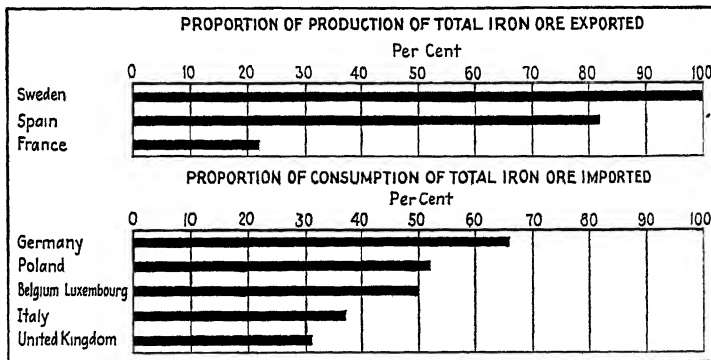


FIG. 178 —The balance sheet of iron ore in the leading European countries, 1925. (U. S. Department of Commerce)

cent of the iron in the ore reserves of all Europe. Because of its restricted coal supply, the production of iron and steel goods, however, has not been in proportion to the country's ore resources (Fig 178). It is when compared with the European leaders—Germany and Britain—that the slow progress of the French metal industry is particularly apparent. Among European countries as a whole, however, France ranks third, and, domestically, iron and steel are second in importance only to textiles among French industries. It should be noted that while coal is in general a limiting factor in French industry, its lack is especially acute in the mining and smelting of ore and the fabrication of machinery, where the fuel consumption is especially high. Furthermore the production of iron and steel goods, particularly of machinery, is hampered by the slow development of industrialization. Of all the coke used for the working of Lorraine ores in 1913 only 12 per cent came from French coal.

The post-war iron and steel industry, stimulated by the acquisition of coal, ore, and industrial equipment at a time when those of Britain and Germany have been depressed, has enabled France temporarily to outdistance the one and become a close competitor of the other. In fact the per capita consumption of iron and steel in France in 1924 and 1925 was actually higher than in either Germany or Britain.

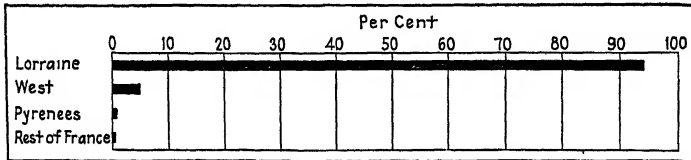


FIG. 179—Distribution of iron-ore production in France by regions in 1926.

Chief Area in Northeast.—The bulk of this industry is naturally in the eastern portion of the northern industrial zone where iron ore and coal are available. This section accounted, in 1926, for about three-fourths of the French steel output, the section about the Valenciennes basin for about one-eighth, and the rest scattered (Fig. 179). The

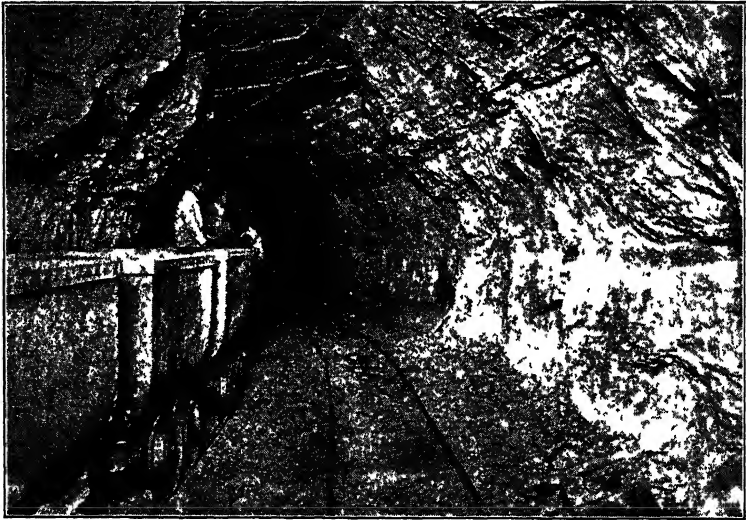


FIG. 180—Interior of an Alsatian potash mine. (Courtesy of Société Commerciale Des Potasses D'Alsace, Mulhouse, France.)

Valenciennes region receives some ore from Lorraine, some from overseas. The scattered iron and steel areas, while less favorably located and less extensive, are important as an aid to national security, since the two principal regions of the north and east are close to the frontier and particularly vulnerable. These scattered small areas produce highly finished specialized products, such as tools and automobiles, while

primary products, such as rails and structural steel, are mainly confined to the east. In the metals, as in other industries, the French emphasize high-grade specialties rather than staples. Thus expensive automobiles are manufactured for export while cheap cars are imported.

CHEMICAL INDUSTRY

France was at one time the world's chief producer of chemicals, and up to the middle of the nineteenth century shared with England the world's main production. Germany, though beginning late, soon took the lead, and, with her vast deposits of coal, lignite, and potash, left France far behind. To the latter, as well as to other countries, the war revealed the close relationship between the chemical industry and modern warfare. Partly as a military precaution, partly due to new technical developments, and partly because of the acquisition of coal, potash, and the energetic development of "white coal," the French post-war chemical industry has developed very rapidly. The French potash industry so long associated with that of Germany will be discussed with that country (Fig. 180).

FORESTS AND FISHING

Forests.—On the average about one acre in five in France is forested, a proportion somewhat less than in Germany. The actual distribution varies widely in different sections, from less than 4 per cent of the total area in the department of the Seine, to over 55 per cent in the Landes of the southwest. In general the highlands and the poorer soils of the plains have the larger stands. Conifers are estimated to occupy one-fifth of the total forested area, hardwoods the remainder. As is true of the agricultural lands, the great bulk of the forests are in small holdings privately owned.

Although careful conservation serves to make the cut balance the growth, the supply of wood is inadequate, and a considerable part of the domestic need must be supplied by imports, especially of construction timber, pulp, and pulpwood.

Besides the usual yield of wood, French forests provide small amounts of cork and charcoal, and they contribute an important share of the world's output of naval stores. The planted pine forests of the Landes covering some 1,500,000 acres yield annually about 80,000 tons of turpentine. This is about one-fifth the average output of the United States and gives France second rank in naval-stores production.

Fisheries.—Its long coast line, its nearness to the rich fisheries of the North Sea, and its predominantly Catholic population have combined to make fishing an important occupation, and the per capita fish consumption high. While both coasts have important fisheries, those of the Atlantic are especially valuable, and along certain sections, as in Brittany,

constitute a major resource. In addition to the yield from adjacent waters, there is a considerable catch from the Grand Banks off Newfoundland. The industry as a whole employs about 125,000 people and the annual catch is valued at approximately \$50,000,000. Among European countries, France ranks high in the value of its fisheries.

TRANSPORTATION FACILITIES

Interior Communications Well Developed.—France has an extensive and well-located network of canals and rivers to supplement her railways. The actual length of the navigable interior waterways, both river and canal, is now about 7,000 miles, practically the same as in Germany, but the latter carry (1925) more than twice as much freight. In fact the tonnage that is moved over all the French waterways is only half that normally passing through the Soo Canal.

With the extension of the railways much of the country's waterway system, whose construction antedates them, had been allowed to decline. In 1860 inland navigation took care of 38 per cent of the traffic; within the next 20 years this declined to 16 per cent. With the rapid development of the iron and steel industry in the eighties, however, interest in providing cheap transport for bulky freight revived, and from 1880 to 1913 traffic on them increased threefold, a rate somewhat greater than that on the railways.

It will be noted that the navigable waterways are very unevenly distributed, the most important ones lying in the north and northeast, where the topography is more favorable and the need greater (Fig 181). Here the large amount of coal, iron ore, and metallurgical products of an industrialized area have justified an extensive system of canals and improved rivers. About half of the tonnage brought into Paris comes by water and that city ranks as the first port of France.

While less important as carriers, perhaps the most interesting canals are those which join the great drainage systems of France with each other and with those of Germany, Belgium, and Holland. Thus the oldest French canal, the Canal du Midi, connects the upper Garonne with the Mediterranean at Cette, making use of the Carcassonne Gap. The Saône is joined with the Rhine by the Rhone-Rhine Canal passing through the Belfort Gate; with the Loire by the Canal du Centre; the Seine-Yonne by the Burgundy using the Côte d' Or; and the Marne-Rhine, using the Lorraine gateway. These canals surmount elevations varying from 625 feet in the Carcassonne Gap to 1,230 feet in the Belfort Pass and, consequently, require many locks (191 in the last-named passage). In the north the waterways are connected with the Belgian system.

Their chief use throughout the country is for local barge traffic for short hauls. The better channels, especially in the northeast, have a minimum depth of $6\frac{1}{2}$ feet and will accommodate barges of several

hundred tons. Of all the interior waterway traffic over three-fourths consists of coal, coke, construction materials, ores, metallurgical products and machinery. Agricultural products make up less than 9 per cent, manufactured materials about 5 per cent of the total. The responsibility

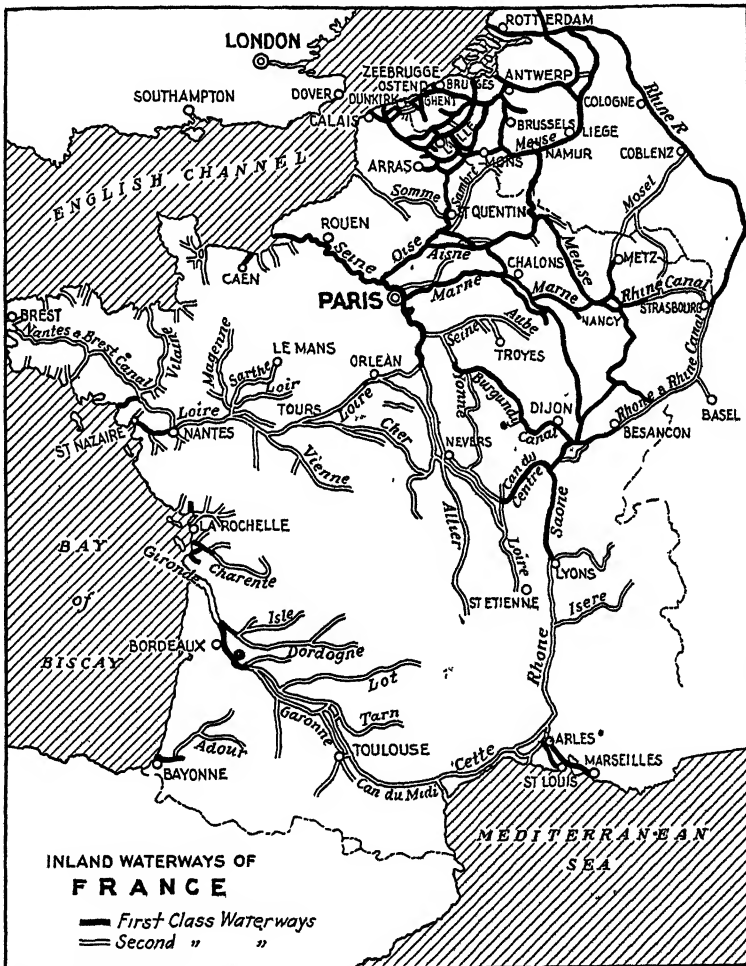


FIG 181—Note the concentration of the first-class waterways in the densely populated, highly industrialized northeast.

for the projects is shared by the national and local governments, the immensity of whose undertaking is shown by the huge expenditure involved. Thus, from 1814 to 1900 there was spent on construction and maintenance of French waterways some \$461,000,000 an amount about equal to the cost of the Panama Canal.

France is well equipped with railways as well as with an excellent system of highways. The total mileage of railroad is less only than that of Germany and Russia among countries of Europe. Conforming to the general topographic arrangement, the principal lines radiate from Paris so that travel in any other direction is less easy. The railways and ports also do a considerable amount of business of a transit character for both Switzerland and Germany.

FOREIGN TRADE

Located in the most highly developed and commercially active part of Europe, with coasts bordering the North Sea, English Channel, the Atlantic, and the Mediterranean, and with excellent internal transport facilities, France is exceptionally well favored for trade. Yet her foreign commerce is only 40 per cent of that of Great Britain. It should be noted, however, that in contrast to the latter, most of the coast line of France is very regular, her territory is twice as large, and her activities much better balanced, so that she is far less dependent upon exchange with foreign countries. Moreover, retarded industrial development has forced France to meet long-established competitors in foreign markets. About one-third of her foreign trade is with her colonies.

Her chief surplus production is in manufactures which constitute about four-fifths of her exports, while coal, raw materials, and food-stuffs make up more than that proportion of her imports. Since she specializes in artistic manufactures, goods of high value but small bulk, the export tonnage is small, less in fact than one-half of the weight of the imports. There is always an excess of imports, but the immense tourist traffic,¹ the large investments of French capital abroad, and the earnings of her merchant marine more than make up the deficit.

Leading Ports.—Of her coasts, the Channel-North Sea section is commercially most important, the Atlantic coast ranking second, and the Mediterranean third. Furthermore, the foreign trade of the last is much more concentrated into a single outlet—Marseille. This has long been the leading French port in foreign trade as well as a close rival of Genova among all Mediterranean ports. The excellent harbor close to the end of the Rhone corridor assures a preeminent position among French ocean ports and an important gateway to western Europe from the Far East and the Mediterranean. The addition of north Africa to the French possessions and the opening of Suez were powerful stimuli to its growth. Its own immediate hinterland includes the leading French wine region and the Lyon manufacturing area. Since the industrial interests, especially in wine, vegetable oil, and silk, have outgrown local raw-

¹ American tourists alone are estimated to have spent \$190,000,000 in France in 1927

material supplies, these commodities play a large part in the trade of the port.

Bordeaux, situated on the Garonne about 60 miles from its mouth, is the fourth city in size in France, the chief port of the southwest, and one of the three finest harbors of that country. About one-fifth of the French vintage output is contributed by the hinterland of Bordeaux which is, above all, a wine port. Naval stores and lumber from the Landes also find an outlet here.

Calais is the leading passenger port while Rouen, Dunkirk, and le Havre lead in freight traffic. The last, at the mouth of the Seine, the most important of French rivers, has become one of the leading European coffee markets, but is handicapped by the shallow and unreliable character of the channel. Rouen, originally at the head of navigation and at the first bridgeable point on the Seine, has always been a thriving port for the rich Paris Basin.

POPULATION

Although five times as densely populated as the United States, France, in comparison with her north European neighbors, is much less closely settled. Thus the British Isles and Germany have twice the density, while in Belgium and the Netherlands it is three times as great.

The most noteworthy feature of the demography is its extremely slow increase. The population of Germany and France was about equal 75 years ago, but since then that of Germany has about doubled, while for France there has been an increase of only about 5 per cent. A low birth rate and small immigration have long been characteristic of France and are closely associated with her economic, social, and legal organization. The loss of about 2,000,000 in the World War was most serious, but the labor shortage was partially compensated for by a considerable and unusual immigration.

France is predominantly agricultural, though a well-marked movement of the population to urban centers is now in progress. As yet, however, less than half are city dwellers, as compared with about two-thirds in Germany and four-fifths in England and Wales. As in many other European countries, the great majority of farmers themselves live in villages rather than upon the parcels of land they cultivate.

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CHAPTER XIII

BELGIUM AND THE NETHERLANDS

Although these adjoining nations have been independent since 1830, and differ radically in important respects, they may to advantage be considered together, as they have many features in common. Furthermore the contrasts between them can perhaps best be pointed out and explained by comparing them (Fig. 182).

Small Densely Peopled Countries.—Belgium and the Netherlands are nearly equal in area and population (11,752 vs. 12,600 square miles, and 8,000,000 vs. 7,800,000 population) Belgium has 675 persons per square mile and Netherlands 627. As the average for Europe is about 128, Netherlands has over 4 times the average and Belgium $4\frac{1}{2}$ times. They are surpassed in density of population by no other entire country, although parts of others such as England and the lowlands of China and India are more densely populated.

High Rank in Production and Trade.—Another respect in which these nations are much alike is in their advancement in agriculture, transportation, and commerce. They lead or nearly lead the nations of the world in respect to the production of various crops per acre and in the density of certain types of live stock per square mile (Figs. 183, 184). As might be expected in such densely peopled and active countries, transportation facilities and commerce are very well developed. Their imports for consumption and exports of domestic products now amount to about \$212 per capita in contrast with \$73 for the United States. Even if we omit the reexports, tiny Netherlands alone has almost as much foreign trade as Italy, Canada, or Japan, about half as much as France with 5 times the population, and one-third as much as Germany with $7\frac{1}{2}$ times the population. The comparative rank of the various countries in per capita trade is shown in Fig. 217, and in total trade in Fig. 16.

Other Resemblances.—In respect to international prominence, both Belgium and the Netherlands are numbered among the leading dozen of the world's nations; they both have extensive colonies; in their cities

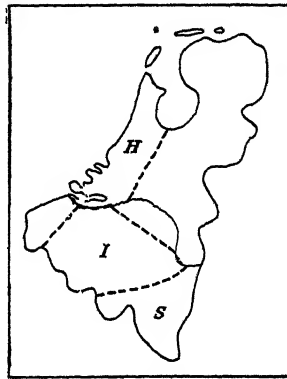


FIG 182 —Regional contrasts in Belgium and Netherlands. *H*, Holland; *S*, southern Belgium, a rolling agricultural area, *I*, densely populated section of Belgium with industrial cities and intensive agriculture.

many international tribunals convene; and the deliberations of their statesmen and reports of their scientists are given respectful consideration by leaders in all other nations. Furthermore, the small region occupied by these nations has played an important role for centuries, and, on the basis of both population and area, has yielded far more than its quota of contributions to the advancement of civilization, discoveries, inventions, works of art, and ideals.

GEOGRAPHIC ADVANTAGES AND RESEMBLANCES

Favorable Location.—What are the geographic bases for the prominence of this tiny area? In the first place, it is exceptionally favorably located for the exchange of goods and ideas. Close at hand lie the most thronged portions of the ocean—the English Channel and the North Sea. The great importance of the ocean to these nations is suggested

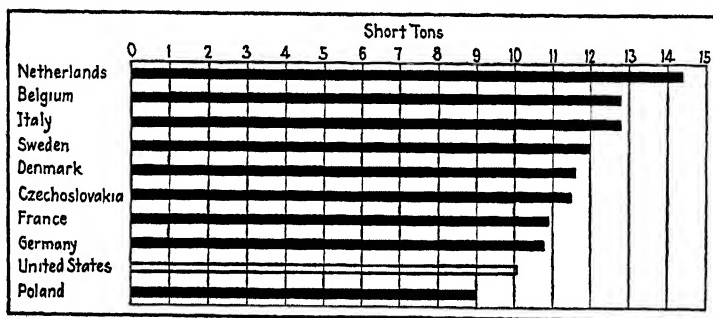


FIG. 183.—Production of sugar beets per acre average, 1921 to 1925

by the fact that three of the world's eight greatest seaports are here—Antwerpen, Rotterdam, and Amsterdam (Fig. 189). Furthermore, for nearly a thousand years this area has contained at least one of the eight leading ports. It is crossed by the world's most used long river, the Rhine. It is itself a part of the North European Plain along which extend many railroads. The countries near Belgium and Netherlands include all but a few of the world's more progressive nations. Close at hand to the west lies England, to the south, the industrial portion of France, to the east Germany, and not far away to the north, Scandinavia. Because of its location, this area is crossed by a large share of the huge traffic between France and Germany and between central Europe and the Atlantic. The Rhine River has been especially advantageous to the Netherlands, but since a ship canal has been built along the Scheldt to Antwerpen, which has become one of the greatest ports on the continent, Belgium also receives part of the traffic between central Europe and the Atlantic.

Have Frequent Contact with Foreigners.—These little nations benefit from this active commerce not only financially but in other ways. The

numerous business contacts with foreigners which this extensive commerce implies have led to a broadening of their horizon and have stimulated the development of new ideas. Among the Dutch more than in almost any other nation, a large share of the people have had numerous dealings with foreigners. One result is that most educated Hollanders are acquainted not only with two or three foreign languages but appreciate to an exceptional degree other people's points of view. In these respects Belgium is not far behind. The fact that there is practically no adult illiteracy in Netherlands reflects the people's appreciation of the desirability of knowing more than they can pick up from their own experience and by word of mouth.

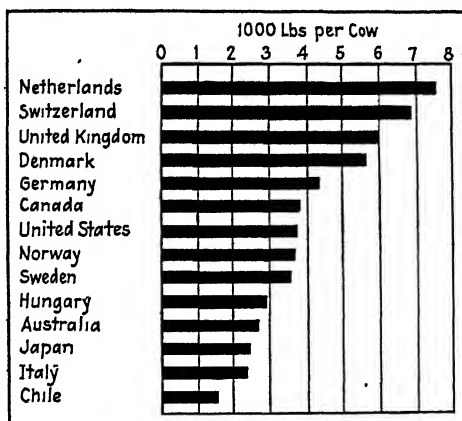


FIG. 184.—Average milk production per cow.

Advantages of Level Land.—A second great advantage possessed by these two countries is the almost level land which prevails everywhere but in southern Belgium, as the physiographic diagram reveals. Level land facilitates agriculture, road making, canal digging, transportation of all kinds, and the construction of factories as well. Netherlands leads the world in respect to the development of transportation. Belgium, however, leads in railroad mileage relative to area (530 miles of railroad to each 1,000 square miles of area). Her passenger and freight rates are the lowest in Europe. Netherlands, with more waterways and many small islands which are difficult to serve by railroads ranks fifth in this ratio, with 181 miles of railroad per 1,000 square miles of area. The railway service between Rotterdam and Amsterdam, however, is perhaps the best in the world. Splendid trains run every 15 minutes or so throughout the day, the fares are low and wrecks almost unknown.

Intensive Agriculture.—The level land facilitates agriculture in many ways. One is that the soil is little subject to erosion or to leaching, and is deep. Artificial fertilization has helped to make the better soils

of these countries remarkably productive. The Netherlands uses more fertilizer per acre of crop land than does any other nation (Figs. 185, 186). Belgium leads the world in the average yield per acre of several crops, and for a number Netherlands ranks second. Table VII gives the average yield per acre in recent years of six crops in Belgium, Netherlands, the United States, and Iowa, probably the best agricultural state in

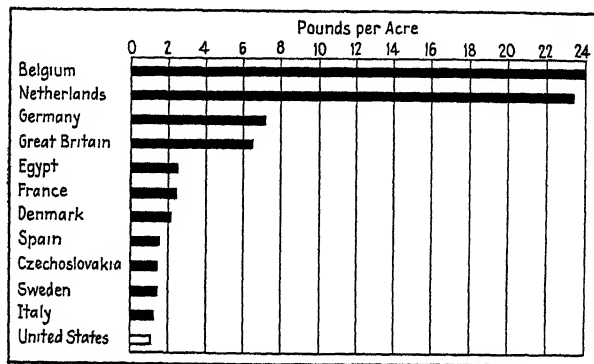


FIG. 185.—Use of nitrate fertilizer, pounds of nitrogen per acre of cultivated land, 1926

America. It will be noticed that the American yield averages only about half that obtained in these little countries.

Although farming is carried on so intensively and is the major activity of the next to the largest group of people, the population engaged in manufacturing and commerce is so large that much food is imported

TABLE VII.—YIELD PER ACRE OF CHIEF CROPS

Crop	Belgium	Nether-lands	United States	Iowa
Potatoes, bushels	280	276	102	82
Beet sugar, tons	2¼	2	1¼	1½
Wheat, bushels	38	41	14 7	18 7
Oats, bushels	66	56	30	36
Barley, bushels	51	50	25	28 9
Rye, bushels	36	31	18	17 2

and foodstuffs form a leading item in the imports. Both of these countries have large areas less favorable for tillage than for grazing. In Belgium the sandy coastal strip has been reclaimed by planting grass and is now used for raising many fine Flemish horses, cattle, and dairy products. Netherlands, too, has much sandy land and most of the two-fifths of the land which is at or below sea level is too wet to grow much except grass. Belgium also has a considerable proportion of its land

close to sea level, and some below sea level. This wet land grows luscious grass. With the great need for foodstuffs and the great energy of the people, it is not surprising that these countries rank high in live stock, as is shown by the following table which includes the two other nations ranking high in this respect. The term "animal unit" refers to a combination of all domestic live stock. A unit is 1 sheep, 5 hens, or $\frac{1}{2}$ cow.

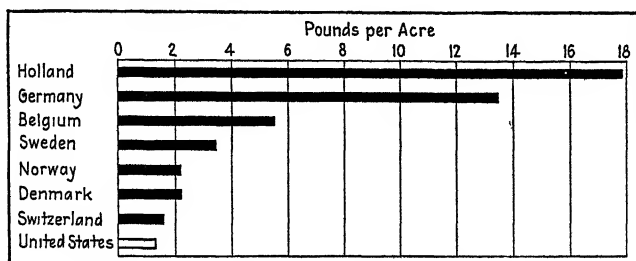


FIG. 186.—Use of potash fertilizer, pounds per acre of cultivated land.

TABLE VIII.—NUMBER OF LIVE STOCK PER SQUARE MILE, AND RELATIVE RANK AS COMPARED WITH OTHER COUNTRIES

Country	Horses		Cattle		Swine		Animal units	
	No.	Rank	No.	Rank	No.	Rank	No.	Rank
Netherlands	31	2	160	1	126	2	1,454	2
Belgium	22	3	150	4	100	3	1,202	4
Denmark	32	1	156	2	169	1	1,575	1
Irish Free State	11		156	3	43		1,225	3

Favorable Climate.—Another real asset is a favorable climate. Their climate is mild, moist, exceptionally dependable, and possesses a distinct seasonal range but not an extreme one. Minor changes of weather of a stimulating type are frequent. Just how significant the climatic advantages of this area are is impossible of determination at present, because so many other conditions affect the area. But unquestionably the favorable climate has helped to make this region an important one.

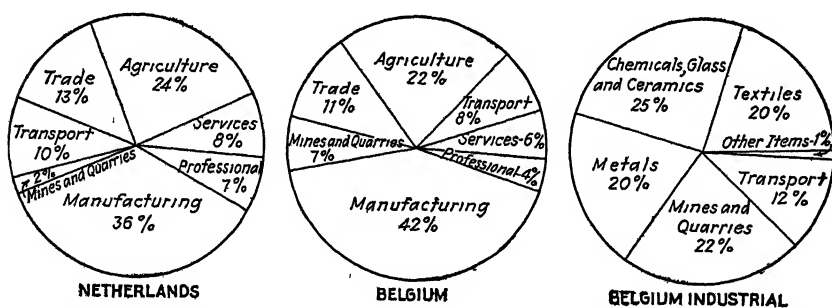
Advantages of Early Development.—A fourth asset possessed by both these countries has been their early development. Netherlands has been one of the important commercial nations of the world since the sixteenth century when the Dutch became distributors of oriental merchandize brought by the Portuguese to Lisboa (Lisbon). Soon they undertook trips around Africa in order to get the oriental products themselves. The development of this early commerce afforded the basis of Dutch commercial importance and helped them secure choice colonies

in various parts of the world, especially in the East Indies. Skillful management has enabled them to carry on a large amount of commerce with these colonies. Three-fourths of the total export from the colonies goes to the Netherlands. Only about one-fifteenth of Netherlands' total commerce, however, is with her colonies. This early start has also enabled the Dutch to build up a profitable business of carrying the commerce of other nations, and they have a large fleet of merchant ships carrying on commerce in all parts of the globe. They are surpassed in per capita tonnage only by Norway and Great Britain, the 1929 tonnage for Norway being 1.2, Great Britain 0.44, and the Netherlands 0.4 tons per person. Netherlands ranks seventh among the nations of the world in total gross tonnage (Fig. 75).

Belgium had a precocious development of a somewhat different sort. Before the English had much of a textile industry, Flemish weavers supplied a large share of the north European supplies of woolens and linens. Indeed Flemish weavers helped establish the textile industry in England. Likewise in navigation, drainage, deep mining, and certain aspects of government, the Low Countries have taught the world.

SOME CONTRASTS BETWEEN THE NATIONS

Occupational Contrasts.—After having noticed several respects in which Belgium and the Netherlands are similar and geographic conditions



Figs. 187 and 188.—Gainfully employed in Netherlands and Belgium by occupational group. Belgium had 1,080,000 industrial workers in 1926.

which help to explain their similarity, we may now consider some of the differences and their causes. The most conspicuous difference has been that in addition to agriculture for home consumption, which occupies nearly one-fourth of the people of Netherlands and one-fifth of those of Belgium, the Netherlands has been especially interested in commerce, ocean transportation, and special phases of agriculture for export, while Belgium has been predominantly a manufacturing country. This difference in development in adjacent countries otherwise so similar is partly explained, however, by the difference in mineral resources.

Differences in Mineral Wealth.—Belgium has long been one of the richest areas in the world in mineral wealth. In addition to large amounts of coal it had valuable iron, lead, and zinc deposits. In contrast, Netherlands, because nearly all of the country is delta land, has until recently had almost no mineral output aside from potter's clay. Consequently, Belgium was enabled to readily develop manufactures requiring such coal and the metals, while Netherlands could not compete in that line, and, instead, developed manufacturing industries which required little fuel but considerable skill, such as diamond cutting, fancy cotton goods, artistic pottery, and dependable cheese and butter.

Belgium has extracted her mineral wealth so actively, however, that the zinc mines have been practically exhausted, and the output of lead is small. Likewise her better iron ores are approaching exhaustion, but fortunately the bountiful French supplies are close at hand and are readily and extensively imported. The Belgian coal output has increased steadily from about 17,000,000 tons a year in the eighties to about 27,000,000 recently, and Belgium has stood third in the per capita consumption of coal. But the difficulty of getting coal is increasing and it is now mined 3,000 feet below the surface—the deepest anywhere—and seams only 18 inches thick are taken at a large labor cost. Great piles of culm form conspicuous features in the Belgian coal fields during the World War when the Netherlands found it extremely difficult to import coal, a great effort was made to locate coal under the delta deposits close to Germany and Belgium. They were unexpectedly successful and now the annual output is about 11,000,000 tons, more than 40 per cent of that of Belgium, and is increasing rapidly. The reserve is officially estimated at 5,000,000,000 tons, or practically one-half as great as that of Belgium and nearly one-third that of present-day France.

Contrasts in Manufacturers.—Accompanying this recent development of coal mining in the Netherlands has been a great increase in manufacturing, but still of the more specialized sort, the type in which skill is a large element. The textiles are especially important, but an interesting item is 300,000 bicycles a year. Another important product is margarine, made from imported vegetable oils but mixed with butter. In a recent year about 400,000,000 pounds of margarine were manufactured in addition to 190,000,000 pounds of butter and 285,000,000 pounds of cheese.

In contrast, Belgium's average manufactures, from 1926 to 1929, amounted to about 4,000,000 metric tons of steel, 63,000,000 square yards of window glass, and 4,000,000 square yards of plate glass. Contrasts in the sizes of the occupational groups are shown in Figs. 187, 188. Of the textiles, linen comes next to cottons, and gives Belgium a high rank among the nations in the manufacture of linen.

Differences in Relation to the Sea.—On the other hand, the Netherlands has some 5,000 ships engaged in fishing. They catch about 500,000,000 pounds of fish a year, an occupation almost neglected in Belgium, which likewise has only a small merchant marine. The coast line helps explain this difference. It is short and practically all bordered by sand dunes in Belgium, but very long, relatively, in the Netherlands. Furthermore not only the mouths of the Rhine but of the Meuse (Maas) and Scheldt are in Netherlands, but there is no important river mouth in Belgium.

Military Differences.—Another difference between Belgium and the Netherlands is in liability to invasion. Belgium has been invaded

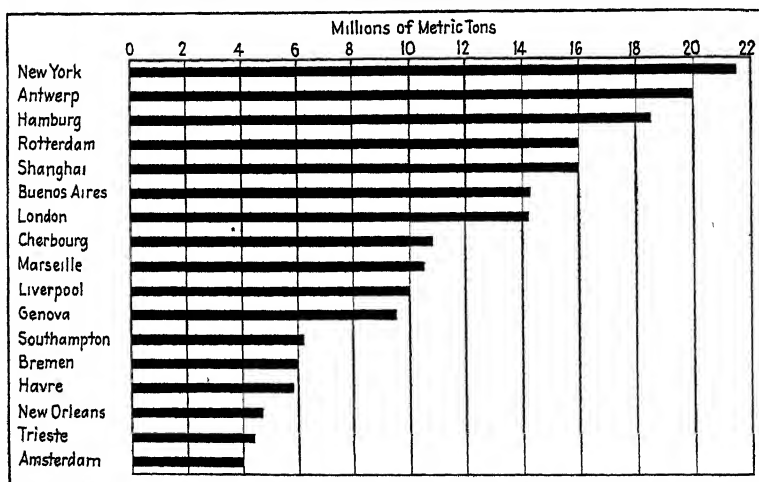


FIG 189.—Leading ports, average of 1926 to 1928, ingoing and outgoing ocean traffic.

repeatedly and has been the scene of numerous great battles. During the World War a large part was conquered and held by Germany practically throughout the war. On the other hand, Netherlands has seldom been invaded. Invasion is difficult in so wet a land, partly because if the dikes are cut, as was done long ago when the king of Spain brought in an army, the invaders are put in a more perilous condition by the rise of the water than are those well acquainted with the land. Furthermore, there is less occasion to invade the Netherlands as it is not on the shortest and most convenient route between two powerful nations. Belgium has this situation, which is as unfortunate in time of war as it is fortunate in time of peace.

Population Contrasts.—Another difference between these nations is in the uniformity of population. While Netherlands is peopled by Dutch, Belgium has two racial stocks. About one-half are Flemish, blue eyed, closely allied to the Dutch, and speak a language similar

to the Dutch. The other, the southern half, are the Walloons, French-speaking brunets. The Belgians are nearly all Roman Catholics, whereas the Dutch are predominately Protestants. French is the official language of Belgium, but the Flemish names Antwerpen and Gent are now official, rather than the French forms Anvers and Gand. The capital is officially Bruxelles, rather than Brussel, the Flemish form.

GEOGRAPHIC SUBDIVISIONS

Belgium and the Netherlands each possess peripheral sections which are chiefly agricultural while the interior of each country is partly industrial-commercial (Fig 182). The agricultural regions may be still further subdivided. The Netherlands has two main types. One is the densely populated highly productive polder or black lands, below or only a little above high tide, in the southwest. These lands grow almost no grain but much grass and root crops. Dairying is carried on there very intensively. Many tulips are grown in the narrow sandy belt between the coast and the black lands. The other chief type is the comparatively sparsely peopled higher land at the north and east. North of the Zuider Zee there is much sand. Belgium also has a sandy tract along the coast, and the southern part of the country is almost as sparsely settled as much of northeastern Netherlands, because it is rolling and less productive. The northeastern section is also largely devoted to agriculture and has only a moderate density of population.

The industrial section, that having most cities, is found in central and north central Belgium and in the section of Netherlands known as Holland. Commercial activities are largely centered in the industrial cities which have the best ports, Anvers (Antwerp), Rotterdam, and Amsterdam. These regions are shown, approximately, in the accompanying sketch map (Fig. 182).

BELGIUM

Cities.—The chief urban centers of Belgium with their populations according to 1929 estimates are as follows:

Bruxelle (Brussels)	826,000	Gand (Ghent)	210,000
Anvers (Antwerp)	425,000	Malmes	60,000
Liege	252,000		

The net tonnage of shipping at Anvers (Antwerp) in 1926, 1927, and 1928 exceeded that of any other port in the world, although New York slightly excelled in the average of ingoing and outgoing marine tonnage. In 1924, however, it was exceeded by New York and London, and especially by Rotterdam which led the world that year. Gand had only one-thirteenth as much commerce as Anvers in 1928.

The total value of agricultural products in 1929 was estimated at \$500,000,000 or about \$61 per capita.

Trade.—The average value of exports for 1925 to 1929 was \$750,000,000 and of imports \$850,000,000. Significant facts as to the foreign trade are shown in Fig. 190. Of the exports to the United States, about half by value were precious stones, chiefly diamonds. Rabbit skins valued at about \$4,000,000 came next, followed closely by plate glass. Of the imports from the United States, the chief items and their average values recently were wheat \$22,000,000, cotton \$17,000,000, automobiles \$12,000,000.

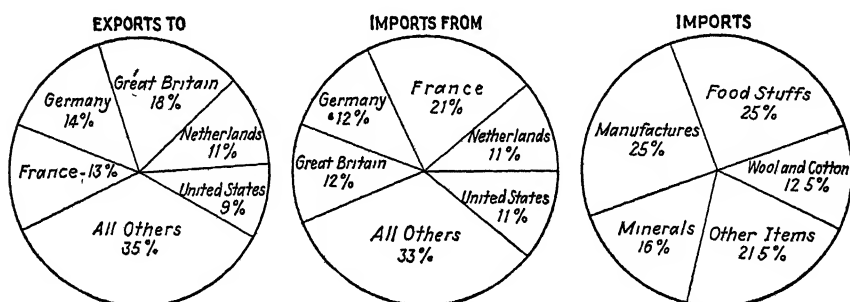


FIG. 190 —Belgium's foreign trade, 1925 to 1929, approximate average

Growth in Population.—The population of Belgium is increasing fairly rapidly both naturally and by immigration. There are about 40,000 more births than deaths per year and the net immigration is about 10,000. These conditions suggest prosperity.

THE NETHERLANDS

Cities.—Most of the chief cities of Netherlands are on man-made land, and are, with their population according to a 1929 estimate,

Amsterdam	743,000	Utrecht	150,000
Rotterdam	580,000	Haarlem	115,000
s'Gravenhage (The Hague)	425,000	Groningen	103,000

Rotterdam handles about three-fourths of the sea-borne traffic of Netherlands. In 1924 it led the world in tonnage of ships entering but was fourth in 1928. The commerce of the Netherlands has recently had an average value of \$1,010,000,000 for imports and \$800,000,000 for exports. More than one-half is with its four nearest neighbors (Fig. 191). The United States, the other important nation in the foreign trade of the Netherlands, furnishes about 11 per cent of the imports but takes only 7 per cent of the exports, including about \$25,000,000 worth of diamonds. Although the colonies of Netherlands are considered to be especially valuable, and export large amounts of valuable products, most of which are sent to Netherlands, and buy much from Netherlands, nevertheless the trade with the Netherlands East Indies comprises only about one-

fourteenth of the total export trade and one-eighteenth of the import trade.

The chief imports are textile fibers, cereals, iron, steel, wood, coal, and mineral oil. The chief exports are textiles, butter, cheese, milk, fresh meat, garden products, margarine, and paper (Fig. 191).

The excess of births over deaths is about 105,000 a year recently, and the emigration only about 3,000, so the population is increasing at a rapid rate (14 per 1,000), more rapidly than the United States or than any other European nation except Russia and Bulgaria, which have much higher birth rates. The Dutch birth rate, about 24 per 1,000, is only 2 to 6 higher than that of the other advanced nations, but the death rate is the lowest in Europe, less than 10 per 1,000 per year. The low death rate reflects the high standards of education, cleanliness, physical vigor,

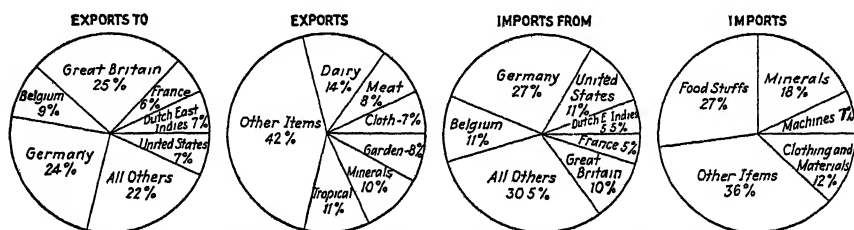


FIG. 191.—Netherlands' foreign trade 1927 to 1928, approximate average

lack of poverty, and lack of excessively large families or numerous aged people. For two generations there have been few Dutch families with more than six children but many with four. Instead of the "ideal family" consisting of a son and a daughter, as in France and more recently elsewhere, the ideal in Netherlands is two sons and two daughters. With 53 per cent of the population rural and much intensive agriculture, children are more helpful than in many lands. The proverbial cleanliness of the Dutch is encouraged by the poor drainage conditions in the parts of the country where most people live. With the congestion of population in such an environment, filth is not only very conspicuous in summer but readily leads to much sickness.

The low death rate, rapid natural increase of population, very small emigration, high standard of living, extensive foreign investments, and rapid development within the country itself all suggest forcefully that the Netherlands is prosperous, and that to a majority of the citizens the future seems reasonably bright.

LUXEMBOURG

The little country of Luxembourg (area about 1,000 square miles, population about 300,000, chief city Luxembourg, population about 50,000), situated between Germany, France, and Belgium, was in the

German customs union before the World War but since 1922 is affiliated with Belgium. It is a land of tiny farms, one-third of which are less than $1\frac{1}{2}$ acres in size and only one-eighth of which are over 12 acres. It also has relatively valuable iron mines. About 65 per cent of the working population are officially engaged in the mineral and metallurgical industries, which in 1928 produced about 7,000,000 metric tons of iron ore and about one-third that much steel (Fig. 201).

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CHAPTER XIV

GERMANY

The map of Germany at the outbreak of the World War presented a very complicated pattern. Of the 25 individual states or provinces widely varying in size, many were not composed of contiguous territory, but were scattered about in detached areas; 50 per cent of them were smaller than Rhode Island, while Prussia, on the other hand, possessed over one-half of the whole territory. Of the important nations in the European family Germany and Italy were the last to attain national unity. Up to 1870 both were geographical terms rather than names of political states, and within the boundaries of Germany there were included a multitude of states, large and small, each having its own coinage, postal system, and tariffs. Goods moving from the border to the center of the "country" crossed from 15 to 20 frontiers, paying as many tariffs.

Historic Background.—A Zollverein, or customs union, a precursor of the present republic, was formed in 1834 including about two-thirds of the states. But petty strife and jealousy retarded unity, which was only attained with the war of 1870 to 1871 when Bismarck succeeded in welding the various states into a coherent empire.

From then until 1918 Germany was really an enlarged Prussia, the largest and most powerful of the various states, whose militaristic and autocratic leaders dominated the political destinies of Germany until the end of the World War. Bismarck had transformed a weak and divided group of states into a strong, well-disciplined empire. The people had seen the easy victory won over France in 1870 to 1871 and had submitted, trusted, and worked with little criticism of the absolute rule of the Prussian militarists.

Defeat in the World War seemingly left Germany almost a material and spiritual wreck. In addition to the loss of important parts of her marginal territory to her neighbors, she was stripped of her colonies, her navy, and her merchant fleet; burdened with an enormous reparations account; and deprived of the respect and confidence of her former associates.

In the twelve years which have elapsed since the Treaty of Versailles, there has been a marked recovery. Especially has she been successful in winning back the confidence of the other powers, a prerequisite to the recovery of her place in international trade. The old political military

machine responsible for the debacle has been discarded and a republic established. The essential element in reconstruction, *i.e.*, the great mass of educated, thrifty, and energetic people, given renewed hope, will undoubtedly be able to restore the German nation to its former position among world powers.

SURFACE FEATURES

Germany is about equally divided between a dissected plateau region in the south and west and a broad belt of plains—the German lowlands—stretching across the north and east. The former is a part of the Baltic Plain which reaches from the North Sea to the Gulf of Finland; the latter is, in general, a region of moderate relief but made up of a great variety of topographic features of diverse geologic origin.

Western Highlands and the Rhine.—Two ancient massives lie along the western border of the plateau and are crossed by the Rhine. In the southwest is the Schwarzwald from whose counterpart, the French Vosges, it is separated by a *graben* now occupied by the Rhine. The river follows this depression from Basle to Bingen a distance of about 170 miles, leaving it at the latter place to swing northwest and cross the second massive, the Slate Mountains, in which it has carved the famous Rhine Gorge. The rift valley continues northeastward to the east of the Slate Mountains into central Germany where within the *graben* occur many volcanic hills. (See Physiographic Diagram)

The Rhine *graben* is in marked contrast to the gorge. The former is a densely populated, flat, fertile, alluvium-filled valley about 20 miles wide, across which the Rhine meanders, and which is bounded on either side by precipitous fault scarps. The erosion valley through the Slate Mountains is a narrow V-shaped gorge. City sites are confined to junction points of the tributaries and main river. Part of the steep valley ridges are covered by terraced vineyards which here reach their northernmost limit in Europe.

The Slate Mountains of the lower Rhine region are of great interest because of the coal fields there. On the north the Ruhr-Belgian fields and on the south the Sarre, with their associated cities, constitute two of the most important industrial districts of Europe. Between this old massive and that of Bohemia there intervenes a varied collection of mountains and valleys constituting the highlands of central Germany. Here are the Harz, the Thuringerwald, and a number of minor features, while the western part of the highlands contain several hills of volcanic origin. Between the highlands of central Germany and the Alps lies the Bavarian Plateau whose southern portion has been covered with morainic deposits from Alpine glaciers.

Plains of North Germany.—The German lowland is a gently undulating plain whose main topographic features are due to the action of the

ice sheet. Several concentric morainic ridges parallel the Baltic Coast, the northernmost one, the Baltic Ridge, reaching, near Danzig, a height of 1,100 feet. Between these ridges are old glacial stream channels, some of whose east-west valleys today provide favorable sites for canals joining the main rivers of the plain. The soils are mostly low in fertility, and there are vast numbers of lakes and marshes. The areas of boulder clay are normally much more fertile than the sandy sections. Only through years of intensive drainage, fertilization, and cultivation has much of the region been transformed into productive farms.

The coasts, both on the North and Baltic seas are low, flat, and poor in natural harbors, characterized by a large number of spits and bars enclosing shallow lagoons. Four great rivers wind sluggishly across the plain to the north or northwest, their mouths choked with sand, except as they are kept open by dredging.

CLIMATE

In spite of its large size and its wide range of latitude, the climate of the country is exceptionally uniform. In general it is a modified continental type, the influence of the ocean being especially conspicuous in the northwest. There the winters are mild and the summers cool, with an extended growing season. Eastward the seasonal range of temperature increases; southward the difference in latitude is largely neutralized by increased altitude. The average July temperature for Berlin is 65°; for Munchen, almost 300 miles farther south, 63°. The open coasts of the North and Baltic seldom freezes, but ice breakers are necessary for the harbors. All of the rivers are ice covered a part of the year, varying from 21 days in the case of the lower Rhine to 2 months for Stettin, while the Oder is closed for 80 days. In the plateau region some of the valleys, such as the Rhine graben, have comparatively mild winters and are suited for vine culture. The rainfall of the plains averages 20 to 30 inches annually and is fairly well distributed seasonally. There is a summer maximum but no dry season. In general the precipitation decreases from west to east and southeast, Silesia receiving the least.

AGRICULTURE

Agriculture Highly Efficient.—The remarkable development of industry in Germany in the 40 years preceding the World War was paralleled by an equally phenomenal expansion of its agricultural output. Unlike Britain, Germany's economic policy definitely provided for the largest possible production of food, so that in case of war she might be independent of the outside world. With a rapidly growing population but a restricted area, the growing demand for foodstuffs was met by increasing the yields. This was accomplished through

the scientific selection and use of seeds, breeding stock, and foodstuffs, as well as by a comprehensive system of agricultural education. In 1914 Germany had 100,000 students of agriculture in her universities, training and evening schools. As a result of this policy prewar Germany was estimated to be about 70 per cent self-supporting as compared with 90 per cent for France, 64 per cent for Italy, and only 37 per cent for Belgium, while German laborers were about equally divided between agriculture and industry.

These accomplishments of German agriculture have been made in spite of a none too favorable environment. The German lowland has a climate characteristically cool and moist with little sunshine, while a large proportion of the soil is light and sandy. Although soils are better in the southwest, the rough topography is there a limiting factor. Thus much of the lowland is suited for rye and potatoes, both important

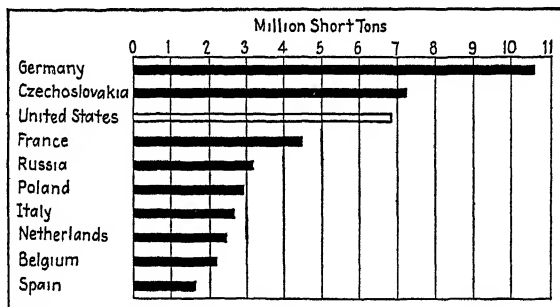


FIG. 192—Average annual sugar-beet production from 1921 to 1925. By 1928 to 1929 Russia had gained upon Germany so that the latter produced only about 50 per cent more than the former.

staples in the daily diet. Wheat and the sugar beet are largely confined to the fertile clay soils. In the south, however, rye is better suited to the hills and slopes than is wheat, the latter being found chiefly in the plateau valleys (Fig. 195).

The World's Chief Beet Sugar Producer.—As indicated, beets and wheat occupy in general areas complementary to those devoted to rye and potatoes, for the former demand more fertile soils. Germany is the world's chief beet sugar producer (Fig. 192) and in 1928 and 1929 produced about one-fifth of the world's beet sugar output, an amount much larger than that of either Russia or Czechoslovakia. As shown on the map (Fig. 193), the region about Magdeburg on the Elbe is the main producing area and ranks second only to the French-Belgium section among European beet districts. Here, the cool climate, heavily fertilized soils, abundant labor, and excellent transportation facilities provide an ideal setting for this crop. Beets are ordinarily rotated with cereals, resulting in increased yields of the latter. By-products of

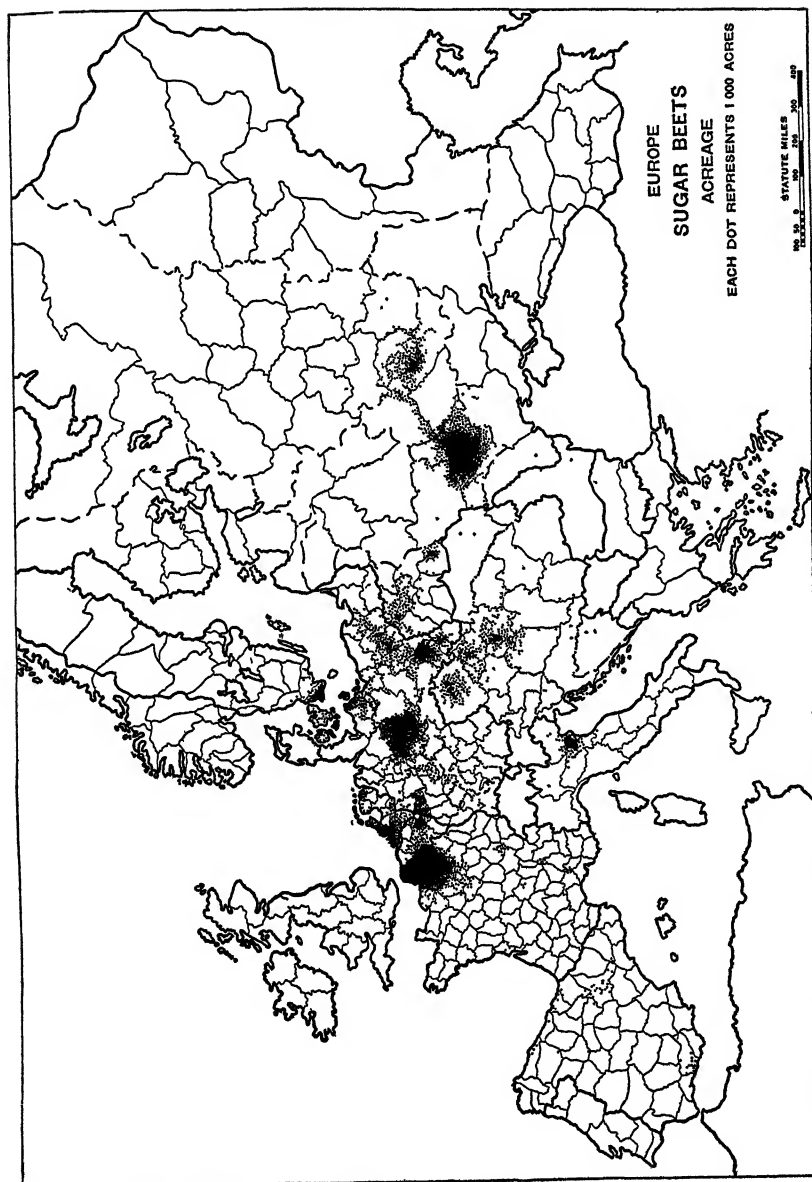


Fig 193—Compare with Fig. 192. This distribution of acreage is based upon prewar figures. In 1928 Germany's yield per acre was more than double that of the Russia, giving the former a large margin of leadership in production (U. S. Department of Agriculture)

beet culture in the form of tops and pulp refuse make excellent feed for live stock, their acre value being higher than that of the average American hay yield.

Rye and Potatoes.—The German lowland is ideally fitted for potato culture. Much of the plain is too sandy for other crops, the climate is cool, labor is abundant, and the product supplies an economic food as well as an important raw material for industry (Fig. 253) In no other country has its production and utilization reached such importance, the normal crop being about four times that of the United States and the 1921 to 1925 average acreage almost twice as large. With an acreage less than that of Russia, prewar Germany produced almost twice as large a crop of potatoes. By 1927 Russia had doubled her potato acreage,

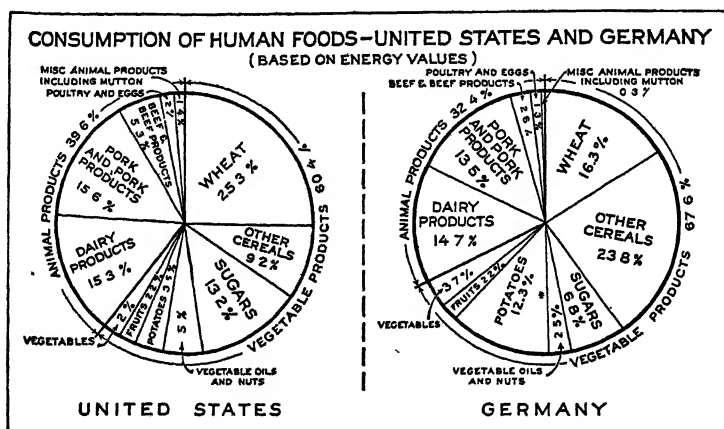


Fig. 194 —Consumption of human foods, United States and Germany (U. S. Department of Commerce)

so that Germany is now second in output to that country. In the quarter century preceding the war, while the acreage was expanded only by one-fourth, the yield increased 60 per cent. The chemists succeeded in increasing the starch content from 14 per cent in 1875 to 20 per cent in 1905. Less than one-third of the prewar potato crop was used directly as human food; alcohol, starch, potato flour, and stock forage absorbed the balance. Nevertheless, potatoes formed the chief item in the diet, the per capita consumption being about two pounds daily. It is the great starch food of Germany and, like corn in the United States, is closely associated with the swine industry. The kind usually used for stock food are mostly inedible, large, coarse grained, and rather flavorless. The wide and varied use of the potato has served to stabilize the market so that there are not the great price fluctuations characteristic of the United States.

The copartner of the potato and the main competing crop on the light acid soils of the cool moist plains as well as on the rough slopes of the plateau of South Germany, is rye, the chief bread grain of the German peasant. The average prewar per capita consumption of rye in Germany was twice that of wheat, while in France that of wheat was seven times that of rye (Fig. 194).

Agricultural Trend.—By the close of the century all of the available tillable land had come under cultivation, with 95 per cent of the area of the country productive and 44 per cent arable. In spite of this the aggregate output constantly increased—in fact faster than did the population up to 1913, the peak year. The post-war depression, the currency difficulties, and the high price of machinery and labor, with the

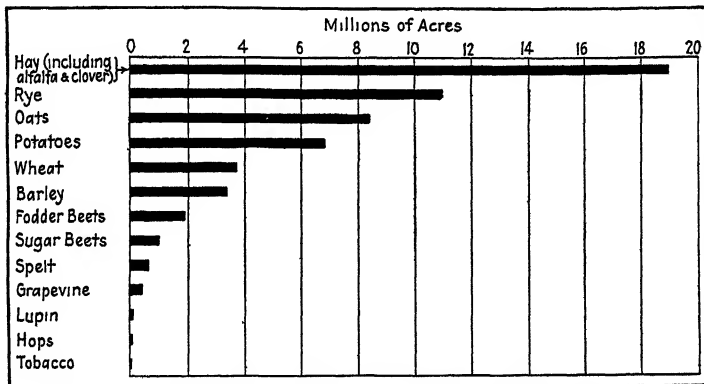


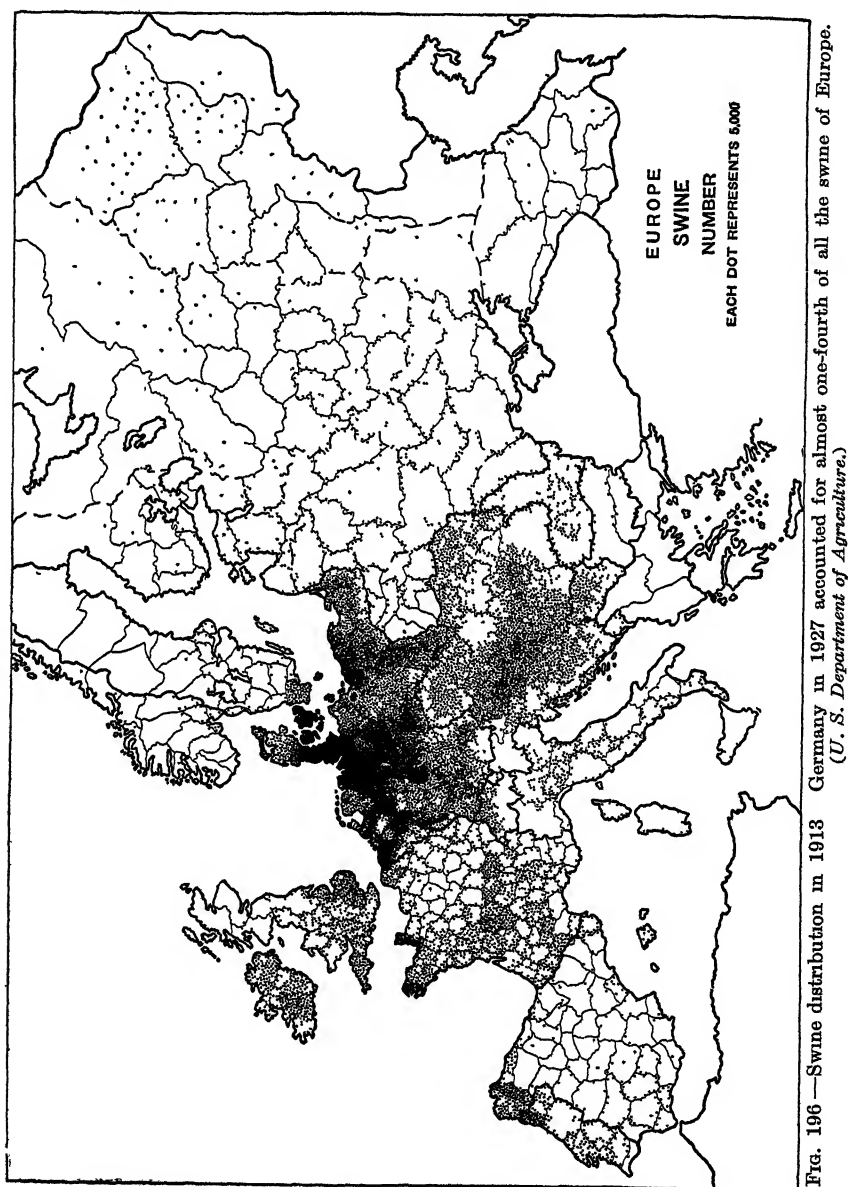
FIG. 195 —Area of principal crops in Germany, average of 1922 to 1926 (U. S. Department of Commerce)

absence of tariff protection, resulted in large areas being turned back from cultivation to meadow and pasture.

In the pursuit of the agricultural program by which Germany was to increase her food output, cereal production by 1890 lost its leadership to root crops and swine, which represent more intensive crops yielding larger returns. There has also been a marked increase in the application of commercial fertilizers, particularly of nitrogen and potash, in both of which the country has become the world's chief producer. From 1910 to 1925 the consumption of the latter per acre was doubled, the former, trebled. Her chief source of domestic phosphate is Thomas slag—a by-product of the steel industry.

Yields High.—Partly as a result of this extensive use of fertilizers, crop yields increased until, under normal conditions, the fields rank among the most productive of the large countries, the yields from cultivated land being second only to Great Britain among the principal countries of Europe, and about one-fourth larger than those of France.

In 1914 Germany and France were approximately the same size. French agricultural resources were, however, greater, for her climate



and soil were on the average far superior. But the more scientific methods used, together with the liberal application of fertilizers caused yields in Germany to be uniformly higher (Figs. 185, 186). Thus the

average production of several staples per acre in the two for the period 1909 to 1913 was as follows

Crop	France	Germany
Rye, bushels	17	29
Potatoes, bushels	129 6	202.7
Wheat, bushels	29 7	32 6
Beets, tons	10 7	13 7

As to the cultivated land, that in Germany produced in prewar years over one-third more per acre than that in France. Similar results were obtained in the animal industry. In Germany the average annual yield of milk per cow was 4,375 pounds; in France 3,599 pounds.

Although cultivating on the average two acres less than the Frenchman, the production of the German farmer, both per acre and per worker, exceeds that of the former by at least a third. This marked difference, while probably involving somewhat larger costs for fertilizer, unquestionably leaves a considerable margin in living standards and income in favor of the German agriculturist. The intensification of agriculture also involved the large use of hand labor, frequently the employment of the whole family. For example, before the war, Great Britain employed 5.8 people per 100 acres, 1.2 being women, Germany 18.3, of whom 10 were women.

Live Stock Important Factor in the Agricultural Scheme.—The country is an important producer of live stock, ranking, in Europe, second only to Russia in production of swine (Fig. 196). This intensive form of animal industry is an important part of the program for increasing food production. In cattle Germany also holds second rank in Europe, the dairying industry being particularly well developed in the north and northwest. Of the oils and fats used in the country about one-third are of vegetable origin but of those derived from animals, about nine-tenths are produced domestically. In addition she provides herself with about 90 per cent of her meat needs, the main items being pork and lard. In the 30 years prior to 1913, the swine increased from 204 per 1,000 population to 383, or over 87 per cent.

MINERAL INDUSTRIES

World's Chief Source of Potash.—For almost three-quarters of a century the world has drawn the great bulk of its potash salts from Germany which up to 1914 had virtually a monopoly of the world's production. The main deposits lie between the middle courses of the Elbe and Weser rivers about Stassfurt (Fig. 197). Here, during an earlier geologic period, when the present north German plain was under

the sea, were deposited rock salt and potash, and it was while drilling for the former that the beds of the latter were discovered. The easy accessibility and vast extent of the deposits dwarf all other occurrences so far known. They cover an area of over 100 square miles and are estimated to contain some 20,000,000,000 metric tons of potash, which at the present rate of world consumption will last for about 2,000 years. As an essential ingredient of practically all commercial fertilizers, potash

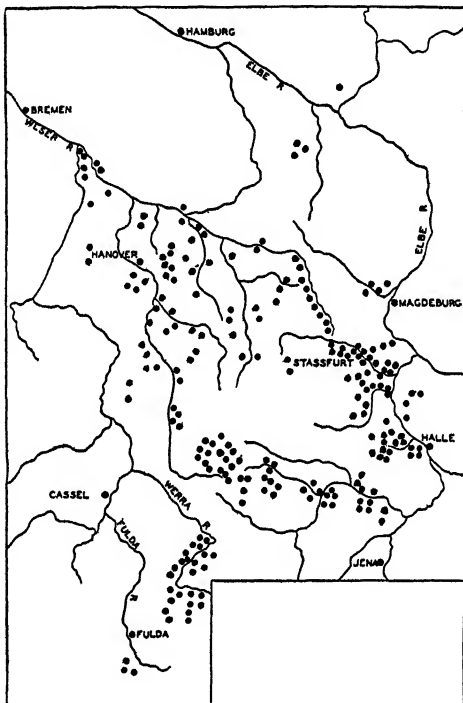


FIG. 197.—Shafts of the German potash field about Stassfurt, central Germany (U. S. Department of Commerce)

is indispensable to the agricultural world¹ and from no other source could it be obtained in such abundance and so cheaply. Germany was thus furnished with a powerful weapon in the exaction of favorable commercial treaties from a potash-hungry world—an opportunity, she was not slow to grasp. Furthermore, the large bulk involved served to provide return cargoes for ships bringing in raw materials, performing much the same service as does coal in Britain's foreign trade.

¹ Both nitrates and potash are found in virgin soil, but whereas the former is restored by nature by letting the ground lie fallow or by planting of legumes, the replacement of the latter takes place so very slowly that the application of commercial fertilizers is necessary.

Importance in German Agriculture.—Of even greater importance has been the part the government has played in the nation's agricultural economy. Government control of production, exports, and prices has given Germany's own farmers cheap potash while foreign users were forced to pay at a higher rate and thus contribute the bulk of the profits. As a result, over 60 per cent of the total output went to enrich Germany's fields and has been of the greatest importance in accounting for the high yields on soils which were originally of low fertility. Only Netherlands uses more potash per acre than does Germany. About 90 per cent of the

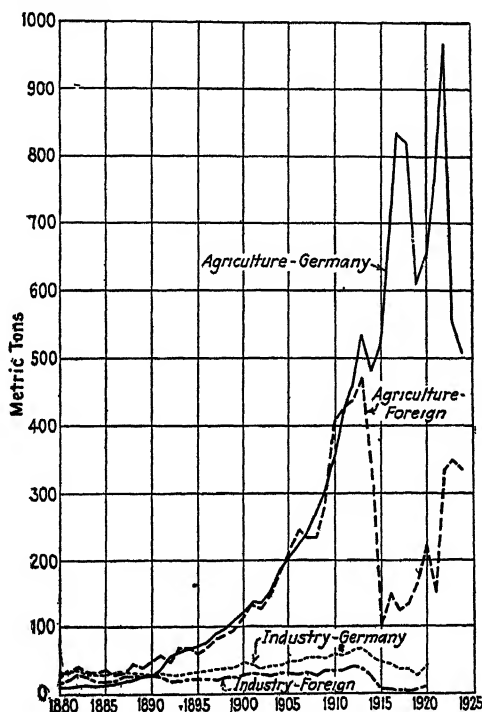


FIG. 198 —Disposition of pure potash in Germany and other countries.

world's production is consumed for fertilizer—its most essential use. Small amounts find a place in the industrial market, which absorbs about 10 per cent of the output, chiefly for the manufacture of soap, glass, matches, explosives, chemical reagents, and for dyeing and photography (Fig 198).

Up to 1914 production showed a continuous and rapid increase, particularly notable after 1895. The war, cutting off most of the foreign markets from which the greater part of the profit was realized, was disastrous, while, at the same time, the necessity of greatly augmenting the food output in the years 1914 to 1918 materially increased the

domestic agricultural consumption. In addition to the other war losses the potash interests faced the cession of the Alsatian deposits to France, thus breaking their monopoly. Previous to 1918, they had been able to restrict the Alsatian output so as to prevent its competition with that of the Stassfurt mines. They had also been influential enough with the old Austria-Hungarian Government to restrict the development of the deposits now within the Polish border. While the latter hold little promise of being a factor in foreign trade in the near future, the Alsatian deposits are potentially serious competitors.

Alsatian Potash.—The Alsatian deposits were discovered in 1904 when prospectors were drilling for coal near Mulhouse. Though the beds are of smaller extent, they are of higher grade (22 per cent) than those of Stassfurt. It is estimated that the reserves underlie about 75 square miles and have a tonnage of some 300,000,000 metric tons of pure potash (K_2O). This would give them about one-sixth the volume of the German reserves, but enough to supply the world requirements, at the present rate of consumption, for about 275 years.

By 1911 the Alsatian output had grown so as to give serious concern to the Stassfurt interests. The German Potash Syndicate thereupon purchased a controlling share and restricted the output to 5 per cent of their own. In a recent pact between the rival interests, the world's markets have been apportioned, 70 per cent to the Stassfurt, 30 per cent to the Alsace production, so that though additional competition between the two is eliminated, the possibility of either one exercising complete control is also removed. Since the Alsatian deposits were taken over by the French the output has grown rapidly. In 1930 they contributed about 25 per cent of the world's supply as contrasted with about 5 per cent in prewar years. It is interesting to note the increase in the French domestic potash consumption since the acquisition of Alsace, the amount trebling from 1919 to 1925. Half of the 1928 sales were for domestic use. Among Germany's foreign customers the United States ranks first, taking on the average about one-fourth of the total. Approximately four-fifths of the export goes via Hamburg and Bremen, while Antwerp is the chief exporting point for French potash.

Leadership Based upon Coal and Iron.—In the scant half century that elapsed between the signing of the Treaties of Frankfurt and Versailles, Germany, as we have seen, came to share with Great Britain the industrial leadership of Europe. In a large measure this remarkable development was made possible through the possession and efficient exploitation of her mineral resources, particularly of coal and iron. Prewar Germany was especially fortunate in the possession of vast reserves of these two essentials of modern industrialism. Within her borders were to be found 40 per cent of the coal and about one-third of the iron ore of the whole continent, the largest proportion of any

European country. In the production of coal, prewar Germany ranked second only to Great Britain, in pig iron and steel output she led her insular rival for over a quarter of a century (Fig 199). Much of her iron ore and a considerable part of her coal were low grade, but she contrived through improved transportation facilities, the importation of high-grade ore for mixing, and the processing of her raw materials to compete successfully with her rivals and to outdistance most of them. By 1913 she was secure in her position among the three leading industrial countries of the world. Her losses of both coal and iron ore according to the Treaty of Versailles have been serious. Under the peace treaty Germany lost 10 per cent of her population, 12 per cent of her area, 26 per cent of her coal, 75 per cent of iron ore, 70 per cent of her zinc ore, 15 per cent of her wheat and rye land, and 16 per cent of her potato land. The restoration of Lorraine alone carried with it 69 per cent of

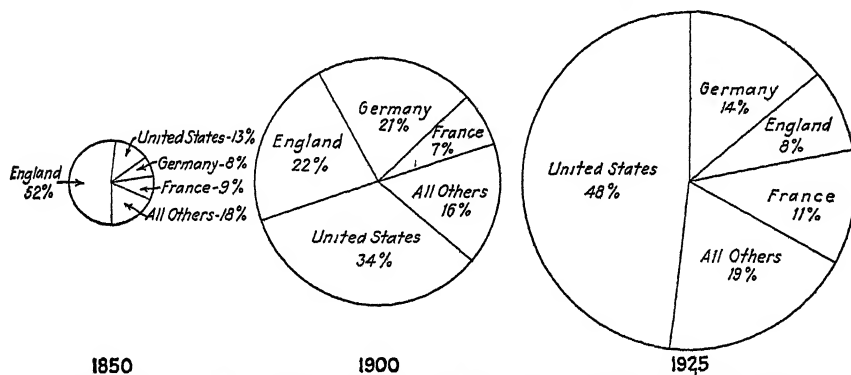


FIG 199 — Changes in the production of pig iron by the world's leading countries

Germany's iron ore reserve The partition of Upper Silesia and the loss of Lorraine and the Sarre reduced the coal reserve 11.5 per cent, so that England has succeeded Germany in first place, while the iron ores still left her are woefully inadequate in amount, low in grade, and poorly located for exploitation. It is under these handicaps that the Germany of today must labor and compete with her industrial rivals.

Distribution of Coal Deposits.—Coal is located largely in three regions, all on the margins of the old massives. These are the (1) Silesian, (2) Sarre, and (3) Westphalian fields.

Silesia.—The Silesian region comprises the remnant of Upper Silesia left to Germany together with the Lower Silesian deposits. About 86 per cent of the production of the former went to Poland, and, since the German, Polish, and Czechoslovakian portions are all parts of one economic unit, the whole is discussed in connection with that country. Lower Silesia has a coal basin underlying an area about 38 by 20 miles, but mining is difficult and the coal is inferior to that of the Ruhr or Sarre.

Sarre—The Sarre in French possession, at least until 1935, lies just east of the principal Lorraine iron-ore field. Coal underlies an area about 75 miles long with a maximum width of 25 miles. Portions extend into Alsace-Lorraine, but the depths increase in the southwest so that mining there is restricted. The coal is inferior to that of the Ruhr district for coking, and its use for this purpose requires the admixture of about one-fourth of the Ruhr coke. Its proximity to the Lorraine ore, however, is a tremendous advantage. In addition much of the prewar production went south to Switzerland and even to Italy. ✓

The Westphalian Coal Basin—Within the Ruhr-Lorraine district, together with near-by mineral deposits whose exploitation is related to it, is contained the world's greatest single industrial region. Although lying within five different countries it is an economic unit, and the various mineral deposits and the industries associated with them are so interdependent that they can best be considered together.

The two dominating features of the area are the Westphalian coal field and the Lorraine iron ores. In the same region are several other iron and coal deposits which, though dwarfed in size by the two mentioned, are of great importance to the countries in which they occur. Thus the coal field of north France extending into Belgium; the Campine chiefly in the latter country; and the Sarre, previously described, are essential to those nations (Fig. 200).

The Westphalian coal region owes much of its great industrial development to its advantageous location. Lying as it does in the lower Rhine valley between the Lorraine iron field and the sea, it has ready access to local ores as well as to foreign raw materials and markets. In addition to the Rhine which crosses it, there is a complete network of rivers, canals, and railroads connecting the various mining districts, industrial plants, and seaports.

The Westphalian field is itself notable for its high-grade coal, for the cheapness with which it can be extracted, and for its great extent—90 per cent of Germany's total reserves and producing three-fourths of her output. It has an area of about 1,500 square miles, only about one-fourth of which is actually exploited. The majority of the mines are between the Ruhr and Lippe rivers where lie the best and most accessible seams. The size of the deposits is most remarkable, comprising almost one-half of the known coal reserve of all continental Europe and at the present rate of production sufficient for about 2,500 years. Measured by the needs of the Lorraine iron-ore deposits, Westphalia possessed twenty times as much coal as is required to smelt all those reserves. Though the beds are faulted, folding has not been great and more than half of the production is now mined by machines. The daily output per worker is considerably more than farther west where the greater depth handicaps mining operations. Of the total output a considerable pro-

portion finds markets in France, Belgium, and Netherlands, as well as the territory served by the Rhine, including Switzerland and even Italy

Iron products are next to the largest item of Rhine transport. Ruhr-ort-Duisburg constitutes the main gateway of the Ruhr. Out of it pass coal, coke, and iron; into it raw materials of grain, wood, and ore, enabling Germany to dominate the trade in coal by land as England has that by sea

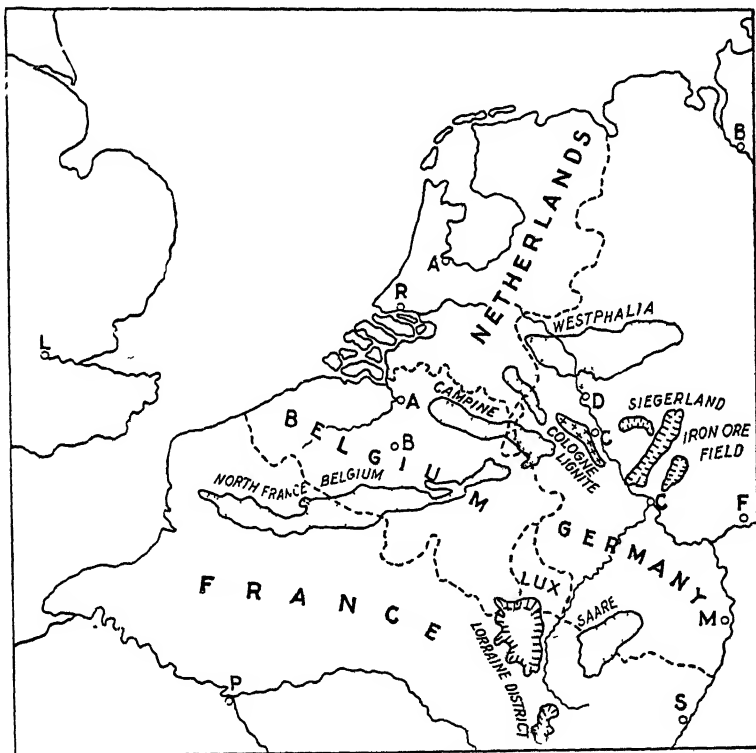


FIG 200 —The Ruhr-Lorraine region of coal, lignite, and iron-ore fields. All of the deposits shown are within 150 miles of Namur. (Adapted from Brooks and La Cruz, *U S. Geol. Survey Bull.*, 703)

Large Coal Exports.—Germany ranks next to Great Britain in the world's foreign coal trade, while, oddly enough, it is normally second only to France in the import of that commodity. The explanation for this anomalous situation lies in the greater accessibility of English coal to the coastal sections of Germany. Thus Westphalia, 140 miles by rail and barge from Rotterdam, pays about 60 cents per ton to reach tidewater. The average haul for Britain is, from pit to port, but 25 miles, costing about 36 cents. Consequently Hamburg and the Baltic

Coast are large importers of English coal. It is for this reason that Westphalia is asking for the Hansa Canal to join the Ruhr directly with the Hansa cities of Bremen, Hamburg, and Lubeck

Coal Used as a Raw Material.—The presence of much low-grade coal coupled with the country's losses as a result of the war has forced a more complete and efficient utilization of other power resources as a solution of her fuel problem. Much progress has already been made and coal is today regarded as a *raw material* as well as a *fuel*. It is estimated that about one-third of all that mined in the country is fed to ovens from which there issues, in addition to coke, a great variety of products serving as raw materials for the chemical industry. Some of the recent developments in chemical and mechanical processing of coal are in (1) low-temperature distillation, (2) hydrogenation¹ or liquefaction, (3) long-distance gas transmission, (4) more extended use of powdered coal, and (5) the greatly increased use of lignite.

Lignite.—Of the estimated total lignite reserve of Europe—approximately 46,000,000,000 tons—Germany is credited with about 13,000,000,000 tons and Russia and Czechoslovakia, somewhat over 12,000,000,000 tons each. Four districts accounted for Germany's 1927 output: (1) Central Germany 41 per cent, (2) Koln 29 per cent; East Elbian 28 per cent; and (4) Bavarian 2 per cent.

The grade of the lignite varies much from place to place, as do also local needs and competing power resources. Thus the deposits of Central Germany are of special interest because of their bitumen content. They are admirably suited to the chemical industries with oil, tar, gas, and wax as by-products of carbonization. The sugar, potash, glass, porcelain, textile, and chemical industries of this region have largely substituted lignite for coal. In the Köln district, on the other hand, lignite is chiefly used for the production of electric power for the Westphalian industrial district. In general, over one-half of the whole German output is made into briquettes, thus reducing the moisture and doubling the calorific value. Much of it requires no binder for briquetting and in this form is extensively used for fuel for industrial and household use. Lignite has been playing an increasingly important role in German

¹ Mineral oils are hydrocarbons, *i.e.*, compounds of hydrogen and carbon. Coal is mainly carbon and the chemist's work is to provide cheap hydrogen and combine it with coal to make oil. The following quotation is from the U. S. Department of Commerce

"Through its synthetic nitrate process, the Dye Trust produces unlimited quantities of hydrogen, which, having been so far a surplus by-product, is now used in hydrogenating 1,000 kilos of raw lignite coal into 490 kilos of coal oil, 210 kilos of gas, and 300 kilos of tar residue. Under this process the 490 kilos of coal oil will be separated into 350 kilos of heavy oil, 80 kilos of heating oil, and 60 kilos of grease oil. The 350 kilos of heavy oil can be further separated into 150 kilos of benzine and 200 kilos of Diesel oil."

industry The tonnage output since 1922 has averaged higher than the production of bituminous coal, and the country as a whole accounts for over three-fourths of the world's annual lignite production.

The high water content, low heating value, and the tendency to crumble when dry, for some time retarded its exploitation, although it has been in use for more than three centuries Like the water power of the adjacent mountains, extensive use of the brown coal had to await the perfection of long-distance electrical transmission This, together with the earlier invention of the briquetting press (1858), enabled it to come into its own. Although German lignite is generally reckoned as having only two-ninths of the heat value of bituminous coal, four-fifths of the deposits can be worked from the surface, mostly by machines and unskilled laborers. The number of workers used in 1925 in exploiting the bituminous coal was five times that required to extract about the same amount of lignite, so that cheapness of production compensated in part for low quality. The present output is equivalent to about 33,500,000 tons of bituminous coal, and, since it is practically all used domestically, releases that much additional of the superior fuel for the export trade.

Lorraine Iron Ores.—About 150 miles south of the Ruhr lies the Lorraine iron-ore district whose deposits are located along the drainage lines of the Meuse and Moselle, two tributaries of the Rhine About 95 per cent of the ores are now in France, the balance in Luxembourg (Fig. 201)

While these ores were one of the earliest deposits of Europe to be used for iron making, their modern exploitation on a large scale for steel is but a half century old During the first three-quarters of the nineteenth century England dominated the steel industry. The acid Bessemer process, then in use, required ores lacking, or low, in phosphorus. Not until the invention of the basic process about 1880 were the Lorraine ores with their high phosphorus content utilized, and Germany with Ruhr coke and Lorraine ore became a great iron and steel maker, by 1900 surpassing Britain The district in 1913 supplied one-third of all the metallic iron produced in Europe. The ores are of rather low grade, averaging about one-third metallic iron However, the great extent of the deposits, their regularity and uniformity, their accessibility to coking coal and to the sea, and the cheapness with which they can be extracted have combined to give them a major role in the European iron and steel industry.

Relation to Tributary Coal Fields.—Furthermore the ores are exceptionally well placed with respect to coking coal Some six fields containing about 86,000,000,000 tons of coal lie within a radius of 150 miles with excellent transportation facilities both by rail and water (Fig. 65). One of these is the Westphalian field upon which the chief dependence for coking coal is placed, over two-thirds of the total coming from that

source, the Meuse and Moselle valleys with the Rhine providing well-graded routes between the two. Here the bulk of the ore goes by rail, since the double handling necessitated by a water haul makes land transport for such a short distance more economical. Much coal and coke are brought back to Lorraine as a return load and used to smelt the lower grade ore there, so that large iron and steel industries have grown up in both districts.

Relation to Political Boundaries—Prewar movements of coal, coke, and ore were directed by economic rather than political considerations,

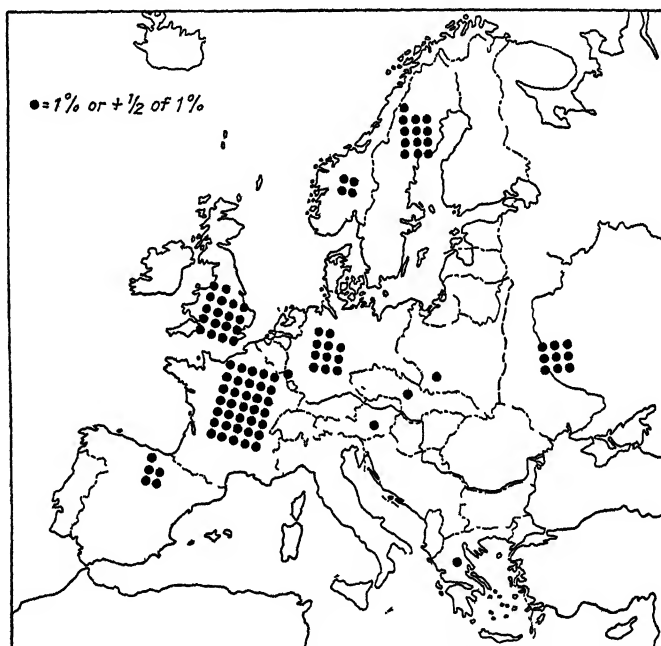


FIG. 201 —Distribution of iron-ore reserves based upon actual iron content as a percentage of total metal iron of Europe

so that they had developed an efficient and profitable integration of the mining and manufacturing industries which the changes in boundaries and tariffs disrupted. The easy accessibility of the Ruhr to tidewater makes it possible for high-grade ores from Sweden, Spain, and north Africa to be brought in. Large amounts of Swedish ore were imported even before the war and the proportion was greatly increased during the abnormal post-war years. Recently over one-half of the total German imports of iron ore have been from Sweden.

While boundary changes, tariff walls, and nationalism have tended to disrupt the old interchange, it seems probable that eventually the old relations will be reestablished, since mutual cooperation is to the advan-

tage of all concerned. In the meantime Westphalia possesses one great advantage for she can import from other lands if Lorraine ores are not available. The loss of iron ores by Germany is serious only when and if nationalistic aims prevent the natural interchange of coal and iron. Her coal, her industrial plants, her labor supply and genius for work seem to insure her an important place in the European iron and steel industry. Indeed, the trend of production since the transfer of Lorraine has been upward even surpassing immediate prewar figures (Fig 199).

Of her own iron ores those of Siegerland are most important. They are of high grade, contain considerable manganese, are close to the Ruhr, and, with the Weser deposits, provide the bulk of Germany's production.

MANUFACTURING

The Industrial Revolution in Germany.—In the 40 years prior to 1914 Germany was transformed from a predominantly agricultural country into one of the world's leading manufacturing nations. Britain's industrial revolution had preceded that of Germany by the larger part of a century, but the phenomenal speed of the latter's development compensated in part for her tardy beginning. By 1914 she had come to seriously dispute with Great Britain the industrial leadership of Europe.

Factors, Human and Geographic, Influencing Industrialization.—Of the various factors which have been responsible for this rapid change, the human is undoubtedly the most important. The population is large and the people have been schooled, by a none too kindly environment, to hard work and thrifty habits. Many of their leaders were far sighted and wise enough to realize the value of technical training and the necessity for a scientific exploitation of the country's resources. The government took an active interest in industrial and agricultural activities. Through its control of the railways and the fixing of rates, through its active participation in many of the larger corporations as a shareholder, through the giving of bounties and the adjustment of tariffs and export quotas, and through laws which compelled various operators to join a syndicate whose control it shared, it identified itself with the industrial, agricultural, and commercial activities to a degree unknown in the other large countries. Rich rewards were found in the application of science to industry, in the encouragement of scientific and economic research, in technical education, and in the aid given to state-owned railways and a subsidized merchant fleet.

Of the natural conditions which favored the transformation, large supplies of excellent fuel and a varied and fairly abundant supply of raw materials have been major factors. The country has been fortunate in possessing outstanding resources of coal, iron ore, potash, zinc, salt,

and pottery clays, together with moderate amounts of lead and copper. Meagerly endowed with forests and water power, it was upon her large coal and iron ore deposits, the scientific skill of her technicians, and the industry and thrift of her laboring class that Germany reared her industrial structure.

Germany as a Chemical Laboratory.—It is in the manufacture of chemicals that she has made her most distinctive reputation among industrial countries. The scientific attitude of her people, their emphasis on technical education, and the presence of certain basic raw materials have combined to make her the world's largest exporter and, with a single exception, the greatest producer of chemicals, with an output in recent years valued at more than \$750,000,000. In 1928 these industries employed 400,000 workers and used 1,000,000 horsepower of energy.

Application of Chemistry in Other Fields.—The extensive development of tanning, brewing, and distilling; of the manufacture of drugs and medicines; of explosives, glass, fertilizers, soaps, artificial silk, steel alloys; and of the liquefaction of coal, reflects the widespread activities of the chemical laboratory. There is hardly a field in which the application of chemistry has not been of great advantage. German agriculture, through the use of commercial fertilizers, the improvement of the quality of its products, and the industrial utilization of its crops has been revolutionized by the chemist. The synthetic manufacture in the chemical laboratory of many of the world's raw materials promises to make the country independent to a considerable degree of producing areas. Among the most striking examples of such are synthetic nitrogen, camphor, rubber, gasoline from coal, and dyestuffs (Figs. 62-64, 98-100). In certain lines, such as coal-tar dyes and potash salts, prewar Germany had virtually a monopoly. Of the former she contributed three-fourths of the world's supply and furnished the intermediaries for the rest. She accounts today for the largest output of salt, and is the world's chief producer of nitrate (36 per cent of world's total, 1925). Because of greater competition in chemicals developed during the war, Germany's position is now relatively less important than in 1913, particularly in the case of dyes whose production had, by 1925, been reduced by one-half and the exports by two-thirds.

Recent Trends in Industrial Development.—The World War, resulting in serious losses in industrial resources, man power, and foreign trade, seriously checked industrial growth. There still remains, however, the potash, industrial equipment, competent workers, and, most essential of all, the coal. With these assets there should be little question of future industrial strength.

There has been in recent years a marked trend toward the increased use of machines and a corresponding reduction in hand labor. While Britain's per capita use of power still exceeds Germany's, the latter has

the greatest total consumption. The extensive use of lignite and water power, both of which require conversion on the immediate site, involves the extensive use of electrical transmission. In this field Germany has had a phenomenal expansion since the war, now producing more electrical power than any other country in Europe. Of the total current produced in 1924, over three-fourths was from coal and lignite and less than one-fourth from water. With the last, Germany is only moderately well endowed, but has developed somewhat over one-half of her potential hydroelectric energy. About 60 per cent of that exploited is in the southwest, in the sub-Alpine region where the dissected plateau furnishes many power sites and where good coal is scarce. Exploitation of this resource has been in many cases a by-product of the development of the German waterways system.

Distribution of Industries.—With widespread technical training emphasizing human skill rather than raw materials and fuel, industries have a tendency to scatter over the country as a whole. It will be seen however, that the great bulk of the establishments are in the southern two-thirds of the country (Fig 202).¹ Furthermore, within this region there is marked concentration in three different areas:

Saxony.—The first, south central, district includes the territory between the Erzgebirge on the south and Hannover-Berlin to the north. Saxony, in the southern part of the district, has for centuries been famous for its industry, based in part upon the great wealth of minerals from the Erzgebirge, in addition to coal and water power. Near Dresden occurs the kaolin from which the famous Dresden china is made. Leipzig is one of the world's great fur centers as well as a famous publishing city. Although many of the ores are now exhausted, Saxony remains a prominent textile producer, and one of the most densely populated sections of Europe. It possesses 360 technical schools, 40,000 industrial plants, 13.7 per cent of all the factory workers of the republic, and over 30 per cent of the textile workers. Farther north are vast deposits of lignite, potash, and rock salt, while copper is mined at Mansfeld in the Harz. Agricultural crops, such as potatoes and beets, provide additional raw materials for industry.

Ruhr-Lorraine.—The second area of concentration, that of the Ruhr, is really a part of the Ruhr-Lorraine industrial region, where steel making predominates. It was considered more fully in connection with the coal and iron resources.

¹ It should be kept in mind that in addition to the output of the large industrial plants shown on the map, there is a considerable production from smaller plants and from household workers, especially in textiles, toys, jewelry, and similar articles which lend themselves to small-scale, often intermittent, household industry. In 1925 the average of all German factories had 20 workers as compared with 60 in the United States.

Bavaria.—The third section of industrial activity, less important than either of the others, is found on the upper Rhine and the Bavarian Plateau. There are no considerable deposits of coal or mineral raw materials, but since agricultural resources are very scant, industry seems, as in Switzerland, to be the best solution of the problem of making a living, utilizing the large supplies of water power and timber available. In view of the limitations imposed, the manufactures are characterized

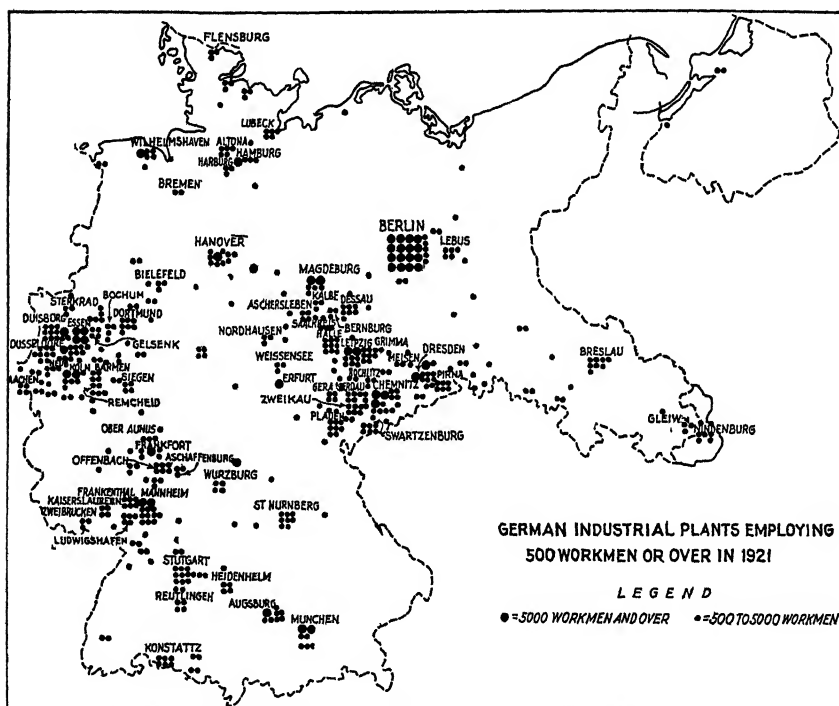


FIG 202 —The major industrial centers occur mainly in three regions (1) the lower Rhine, (2) Bavaria, and (3) Saxony

by their high quality rather than cheapness, their value being based on the great amount of skilled labor involved and not on the quantity of fuel or raw materials needed. Thus Nurnberg is the world's toy center, Pforghem specializes in jewelry, and Munchen, supplementing water power with coal brought up the Rhine, uses the superior hops and barley grown locally for her world-famous breweries.

TEXTILES

An Important Textile Manufacturer.—The position of the textile industry in prewar Germany was similar to that in Great Britain. It ranked next to iron and steel in importance, employed one-eighth of the

entire industrial population, and its exports totaled almost a quarter of a billion dollars. In 1929 Germany was surpassed in cotton spindles only by Great Britain and the United States

FORESTS

Forests Carefully Conserved.—Although resources are of moderate importance, Germany leads the world in scientific forestry. Threatened in the eighteenth century with disaster through the destruction of their forests, then their sole fuel supply, the Germans were forced to conserve their trees and provide a permanent wood supply for the future. These early measures consisted in dividing the wooded areas into 80 to 100 equal parts, only 1 of which could be cut each year. With the discovery of coal in 1850, the fear of a fuel famine was removed, but by that time the public attitude toward forests had become so well established that forest preservation was continued to provide timber resources.

About one-fourth of the country is better suited for tree growth than for cultivation, and these areas are largely devoted to such culture. Forests are treated as crops, the selection of trees, the density of the stand, the cutting of mature timber, and its replacement are regulated by law. Reckless cutting or waste is prevented and the harvest restricted to the annual growth. As a result of this care the nation has been able to supply about two-thirds of her timber needs from her own forests.

About one-fourth of the total forest is owned by the peasants as wood lots, one-half by states or municipalities, and the remaining one-fourth is on large estates, with the chief production from the last two. All forests, both public and private, are open to all the people at all times. Those owned by cities serve as great playgrounds and recreation centers made to yield an income rather than to be a drain on the public treasury. German forests are an object of national solicitude and popular opinion is practically unanimous in behalf of their maintenance. Their forestry methods have become a model for many other countries, where a rational system of land utilization is being developed.

TRANSPORTATION

Germany's rapid industrial and agricultural development has been closely linked with the growth of its transportation system. It ranks third in railway mileage among European countries and possesses a comprehensive system of waterways unrivaled anywhere (Fig. 203). Both are largely government owned or controlled and have been made to cooperate and supplement each other most effectively.

An Extensive Inland Waterway System.—The present inland waterway system comprises 6,252 miles of navigable rivers and 1,383 miles of canals; a total length about one-fifth that of the railways with traffic in about the same proportion. The inland fleet of approximately 25,000

vessels carried, in 1925, 85,700,000 tons, an amount over twice that on the French system. Some of the ports handling this trade are as busy as seaports. Thus Duisburg-Ruhrort handled almost 23,000,000 tons and Berlin, 10,000,000 in 1925.

The north German lowland, crossed from south to north by a series of long navigable rivers, provides an excellent natural setting for waterways development. The government has expended hundreds of millions of dollars in improving these rivers and joining them into a connected



FIG. 203 —The completion of canals now under construction will provide a remarkable system of inland waterways from east to west entirely across Germany (*U. S. Department of Commerce.*)

system. Practically all the navigable waters of the country should be classed as "canals," since even the larger rivers have been much changed to meet the needs of modern transportation.

That the waterway system so built has been as economical a carrier as the railways, all costs considered, seems open to serious doubt.¹ Certain of them, such as the Dortmund-Ems and the Kiel canals, have been disappointments financially, but are distinct assets during wartime. Whatever motives may have actuated their construction, the canals

¹ The whole of the capital investment and 60 per cent of the maintenance and administrative costs were in prewar years paid by the public treasury.

and the railways have been used most effectively by the government to stimulate the industrial and agricultural growth of the country

Main Rivers Internationalized.—The chief rivers of the lowland—the Rhine, Weser, Elbe, and Oder with their improvements—facilitate north-south traffic, while the Danube provides a backdoor exit to southeastern Europe. All of these rivers, except the Weser, serve other countries as well as Germany and, with the Kiel Canal, have been internationalized. Their administration by an international committee prevents their monopoly by a single power and is especially important for inland countries such as Switzerland and the succession states.

Canal Links Provide East-west Facilities.—Transportation between the industrial west and agricultural east called for the linking of the main streams by canals. For these the east-west valleys carved by streams which ran along the front of the former ice sheet, while the latter blocked the natural outlet to the sea, have provided excellent routes. The canal connecting Berlin and Magdeburg, for example, occupies such a depression. With the completion of the Weser-Elbe Canal now under construction there will be provided a continuous waterway from the Rhine to the Oder and on to the Vistula.

Two other projects are under way. one for deepening the Neckar for some 71 miles to accommodate vessels of 1,200 tons; the second, the Mittelland Canal, is well advanced and will provide direct connections between the Rhine and the Berlin canal area. It is planned that thousand-ton boats will be able to reach the capital by 1931.

The Rhine.—The Rhine is one of the world's most important commercial rivers. Though not conspicuous for its length, its volume, or the size of its drainage basin, it has carried, in a normal year, over five times as much traffic as the Danube and half again as much as all the other rivers of Germany combined. It is of major importance to five countries.

The conditions which have favored its extended use are:

1. Its comparatively even flow and freedom from prolonged freezing.
2. Its location in a densely populated industrial region whose raw materials and coal require cheap transport.
3. Its use as a link in two of the most important routes across Europe.
4. The location of its mouth in the world's busiest water—the North Sea.
5. Extensive artificial improvements such as deepening, straightening, and the building of many terminals and artificial harbors. In addition canals have connected the Rhine system with the basins of the Rhone, Sarre, Scheldt, Meuse, and Danube.

Sections of the Rhine.—Within Switzerland the Rhine is of little commercial importance. It rises in a glacier on the flanks of St. Gothard only 12 miles from the source of the Rhone. After passing through the Boden Sea, where it leaves its sediment load, it runs westward to

Basle forming the boundary between Switzerland and Germany. This international section is full of rapids and falls suited for power but of little use for transport. Basle, just within the Swiss frontier, is usually

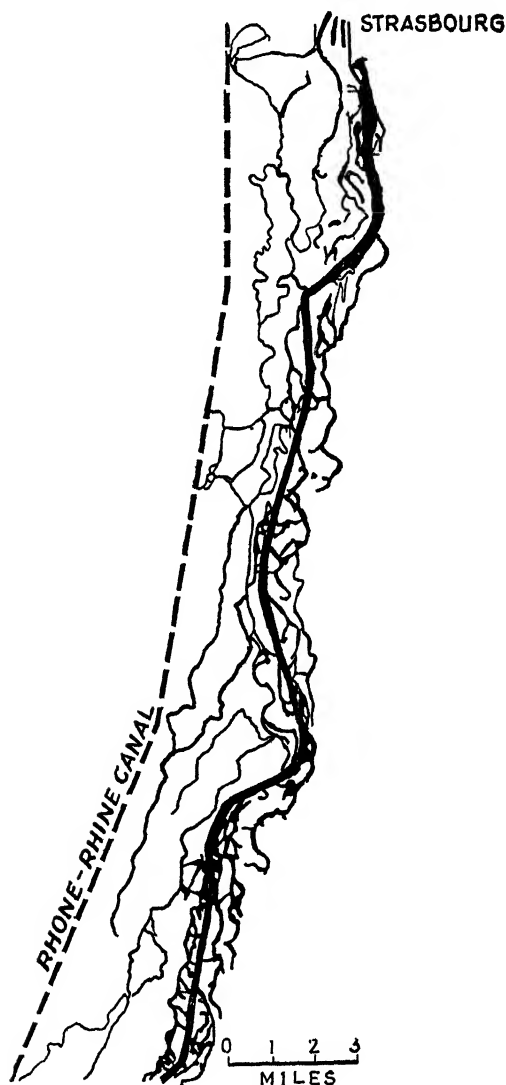


FIG. 204.—Rhine River south of Strasbourg showing straightened and deepened channel, also the Rhone-Rhine Canal. This is in the graben. Most of the traffic here uses the canal rather than the river.

considered the head of navigation, but, as a matter of fact, the waterborne traffic of that city port is very small. In 1924 it was only about 1 per cent of that using the railroads entering and leaving the city. The

valley from Basle to Mannheim is a naturally graded thoroughfare for railroads and of far greater importance commercially than the stream itself.

From Basle to Bingen where the river meanders over the flood plain of the graben valley, the course has been much altered by straightening the channel (Fig. 204). Above Strasbourg, the traffic uses the Rhone-Rhine Canal rather than the river itself. The depth of the channel varies from 6.5 feet at Mannheim to almost 10 feet below Koln. The gorge section from Bingen to Bonn is so narrow as to afford scant room for railways beside the channel, but below it the river again winds back and forth over the broad European lowland reaching the North Sea through Netherlands, which is largely delta built by the river. On one of its tributaries lies Rotterdam, while other commercial outlets are Anvers and Amsterdam—all three leading world ports.

A Link in International Water Routes.—In its upper course the Rhine is joined by canals with the Rhone and, by way of the Main, with the Danube. The Rhone-Rhine Canal parallels the Rhine through the upper part of the graben, crosses the Burgundy Gate where it reaches an elevation of 1,150 feet and joins with the Saône which connects with the Rhone at Lyons. The Rhone-Saône is also connected with the other French river systems by canals ✓

The Main and Danube were joined almost a century ago by the old Prince Ludwig Canal, but its small size, which limited it to vessels of 120 tons, and its steep gradient, which required 100 locks to surmount the high divide, made it an easy victim of competing railways, so that its chief interest for many years was historic rather than economic. There is at present under construction a new Main-Danube Canal which proposes to accommodate vessels of 1,500 tons, the new route differing considerably from that of the old canal. Fifty-two locks and dams will be needed, for the canal must rise almost 1,000 feet above the lower Main and 400 feet above the Danube at Passau. The completion of the project promises to mark an important step in trans-European traffic; while the water power developed (1,475,000,000 kilowatt-hours) will be an important factor in the industrial exploitation of a region of scant coal supplies.

In its lower reaches the Rhine is joined by means of the Rhine-Marne Canal with the Marne, by the Dortmund-Ems Canal with the North Sea at Emden, and by other canals with Anvers. The Dortmund-Ems waterway was intended to furnish an outlet entirely in Germany territory but has failed to divert much from the parent stream.

Traffic.—It is estimated that in normal prewar years there were over 10,000 vessels navigating the Rhine. Below Mannheim the river was a busy thoroughfare with trains of four or five barges towed by powerful tugs as the most common carriers, and coal, iron ore, stone,

cement, and lumber constituted the main tonnage. All told, traffic on the river and associated canals in 1925, 57,000,000 tons, upon the Elbe, 12,500,000.

FOREIGN TRADE

High Rank in Foreign Trade.—Germany's foreign trade, as a copartner of her industry, came late but, like it, rose rapidly. By 1914 she had become one of the three great commercial nations of the world, with a foreign trade of some \$5,000,000,000 annually, one-eighth of the combined total of all countries.

Imports Normally Exceeded Exports.—In the matter of self-sufficiency in raw materials she occupied an intermediate position between Great Britain, twice as dependent, and the United States, far more nearly self-sufficient. Her foreign trade, however, was consistently unbalanced, imports exceeding exports by from \$200,000,000 to \$400,000,000 annually. But "invisible exports," among which were \$100,000,000 income from the carrying trade, \$25,000,000 earned by her railways on transit freight, almost \$250,000,000 received as interest on foreign investments, and \$60,000,000 in commissions earned by her banks and other financial institutions abroad, more than compensated for the difference and left a considerable amount for increasing her foreign investments.

Chief Trade via North Sea.—In spite of the country's long land frontier, as early as 1900, 70 per cent of her foreign trade went over the sea. In view of the importance of the maritime traffic, Germany's coast must be considered rather unsatisfactory. The land is low, much of it bordered by marsh and dune; spits and lagoons fringe the coast, while the absence of strong tides in the Baltic and the sediment-laden rivers favor the formation of deltas. Furthermore, both rivers and harbors east of Denmark are badly handicapped by ice, but the former, in spite of their disadvantages, offer the best harbor sites available. In 1912 almost one-half (46 per cent) of Germany's exports to Great Britain moved via foreign ports, chiefly Dutch and Belgian.

While the Rhine is the river most used for interior transport, the fact that its lower course lies in a foreign country is a marked disadvantage to Germany. In spite of this, however, there is a tremendous foreign trade carried on by way of that river, using the ports of Rotterdam and Antwerp. The Elbe opening into the North Sea ranks second only to the Rhine in inland traffic and has in Hamburg the greatest German port.

Hamburg.—Not only is the tonnage through Hamburg greater than that of all other German ports combined, based upon volume and value, but it is much more diversified and widespread than that of any of its domestic rivals. In addition to a highly advantageous position, it has had the benefit of wise economic and political leadership. Cheap and efficient transport, both land and water, link it with the sea and with

the highly industrialized portion of middle Europe. It should be noted, however, that Hamburg's commercial relations with the great Westphalian industrial district are less close than are those of Anvers and Rotterdam. The Rhine is the great natural gateway for that region despite international frontiers. The Hansa Canal, mentioned elsewhere, represents an attempt to divert some of this traffic through the Elbe mouth. Hamburg in 1913 was the leading port of Europe, based upon the tonnage of vessels, and ranks among the leading half dozen such in the world.

As a consequence of their advantages, the North Sea ports of Germany handled four times as much tonnage in 1913 as did those of the Baltic. Hamburg accounted for half of the North Sea coast movement, followed by Bremen, Brementhaven, and Emden. For the Baltic Coast, Stettin, Rostock, and Sassnitz led.

Merchant Marine and Aircraft.—The promotion of a large foreign trade was one of the principal planks in the German industrial expansion program, with shipbuilding as one of the country's major industries. At the outbreak of the war it possessed almost 5,000,000 gross tons registered. The World War affected commerce to a greater degree than any other of her activities. During the war the blockade practically stopped all overseas trade and the peace treaty required her to surrender most of her shipping to the Allies to replace that sunk by submarines. After these deliveries there were left, in 1920, only about 500,000 tons, which, by 1927, had been increased to almost 3,500,000. Germany in 1928 occupied sixth place among countries in merchant marine. Furthermore, as a newly built fleet, the ships are mostly modern oil burners. It is interesting to note that the building program calls for cargo carriers of smaller size than the average prewar boats, as the former are considered more economical.

Though restricted in the matter of military aircraft production, Germany is the leading European country in commercial aviation. Measured by government appropriations, by annual miles flown, or the passenger traffic, Germany has thus far outdistanced her nearest competitor, France (Fig. 85).

Through its well-organized consular service, its preferential railway rates on goods destined for export, its large foreign investments, and the close cooperation between its banks and industries, Germany has built up a post-war foreign trade second only to the United Kingdom in value.

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CHAPTER XV

SWITZERLAND

PHYSICAL FEATURES

Physiographically Switzerland consists of three well-defined regions: the Jura Mountains in the northwest occupying about one-sixth of the total area, the high Alps in the southeast, covering one-half of the surface; and between the two the plateau, which, though possessing only one-third the area, contains two-thirds of the population and is the heart of the nation.

The Juras.—An outlier of the western Alps, the Juras are a series of parallel ranges whose rain-soaked slopes, favoring the growth of forest and grass, afford a basis for an extensive dairy industry, including among its products the world-famous Neuchâtel cheese. The chief occupation, is, however, the working up of metal and wood into small but valuable articles easy of export, such as watches, toys, and jewelry.

The Plateau.—The plateau with an average elevation of about 1,400 feet, the home of most of the Swiss people, is a continuation of that of Bavaria. Its surface is covered with glacial drift, while moraine-dammed valleys contain many lakes. The two largest are Lac Lemman (Geneva) and Bodensee at either end. Nearness to the hydroelectric power plants of the Alps has favored industrial progress so that manufacturing, along with forestry and agriculture, here reach their highest development. The fairly level surface, its chief asset, naturally allows easier communication, and a network of railways serves the plateau. Proximity to Germany and the easy route via the Rhine valley make Basel, just north of the Juras, a great commercial focus, one of the chief railway centers of Europe. Foreign trade moves chiefly across Germany, using Rotterdam, Antwerp, or other North Sea ports.

The Alps.—The Alps, shared with Austria, form the connecting link between the Apennines and the Carpathians (Fig. 205). Beginning at the Gulf of Genoa, they curve west, north, then eastward, for about 750 miles, terminating where the Danube separates them from the Carpathian system to form the Austrian Gate. In the west they are narrow, but eastward they divide and subdivide until in Austria there are some five major ranges. The system consists of a central core of crystalline rock, originally flanked on both sides by limestone. On the south side, west of Lake Maggiore, this limestone is now gone, and the slopes from the Alps to the plains of the upper Po are consequently very abrupt.

Farther east in the Tyrol and along the whole northern side of the mountains the junction with the plains is marked by plateaus

The main ridges are separated from each other by valleys with a general east-west trend. Thus the upper Rhone and Rhine occupy

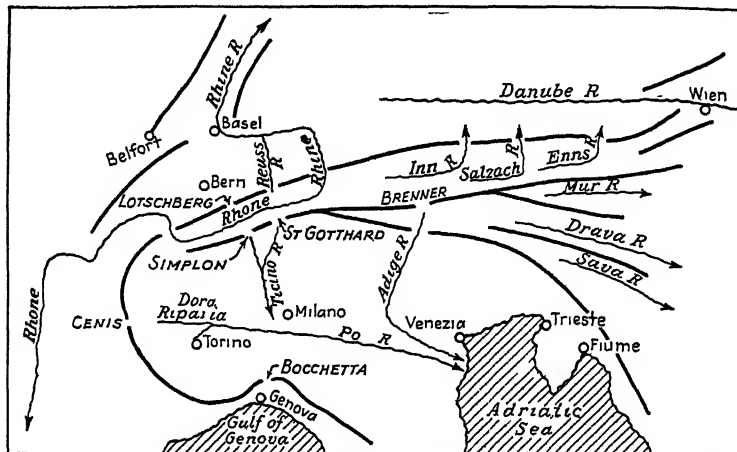


FIG. 205.—Diagrammatic sketch of the Alps showing main ranges and the breaks which provide passes and favorable tunnel sites

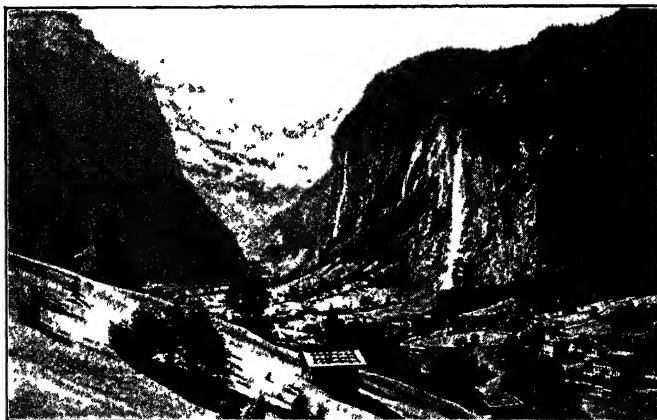


FIG. 206.—Lauterbrunnen, near Interlaken. An excellent example of a U-shaped Alpine valley with tributary hanging valleys marked by waterfalls

the depression marking approximately the division between the crystalline core and the northern limestone ranges. The corresponding valley at the south is occupied by the Drava.

Fortunately there are many transverse valleys cutting across these ranges, depressions of great significance in providing routes for transportation across the Alps. The St. Gotthard, Simplon, Brenner and others have been famous thoroughfares for centuries, although today tunnels

underneath most of them care for the bulk of the traffic. While the Alps serve as a commercial barrier between the north and the south, they possess, on the other hand, valuable assets in their scenic attraction, the entertainment of tourists providing one of the chief sources of income, as well as in their water power, the keystone of the Swiss industrial structure.

The river valleys are U shaped in cross section, a result of ice erosion. Many tributary valleys, less actively eroded, are left at much higher levels so that branch streams must drop over steep cliffs from these "hanging valleys" to the main channel often, several hundred feet below. These falls (Fig. 206), provide an unusual head of water as well as an

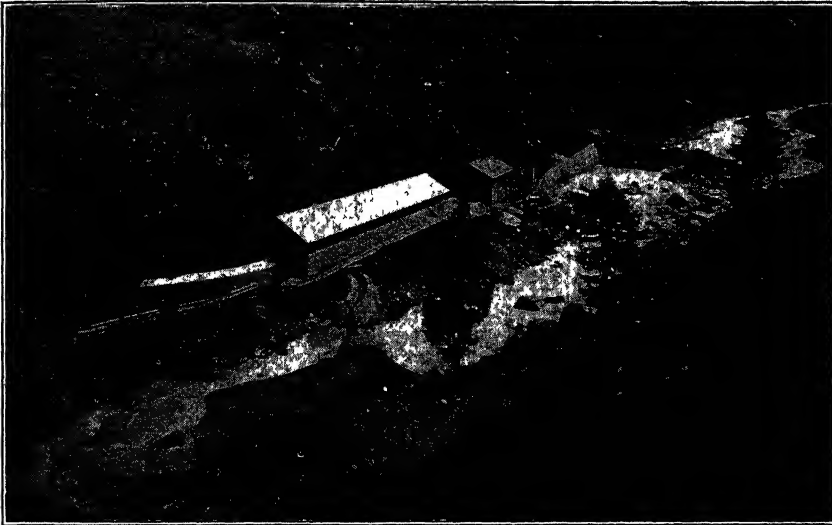


FIG 207 —Power station on the Lonza. Intake and sand-separating plant at Balen (Wallis) on the Vierge River of Saas. (*From Guide to Swiss Hydraulic Developments.*)

attraction for the tourist, while the lakes not only add to the scenic setting but also regulate the stream flow and serve in a small way as transportation routes.

Water Power.—Aside from the scenery, water power is the one outstanding natural resource of Switzerland—the natural pivot about which the whole system of national economy revolves. It is the motivating factor in Swiss industrial life, the power which moves the bulk of their transport, and in addition, is becoming an export commodity of considerable significance. In perhaps no other country, with the possible exception of Norway, is the future of the economic life of a nation so bound up with the utilization of water power.

Climate, topography, and economic conditions have combined to form a natural setting for this form of energy development scarcely

duplicated in any other country. The great height of the Alps results in (1) an unusually heavy precipitation, (2) low temperatures, (3) extensive glaciers and snow fields, and (4) steep gradients in whose descent the streams may be harnessed (Fig. 207). About one-tenth of Switzerland's surface is occupied by lakes, ice, and snow fields. Even where such natural lakes are lacking, the narrow gorgelike valleys,

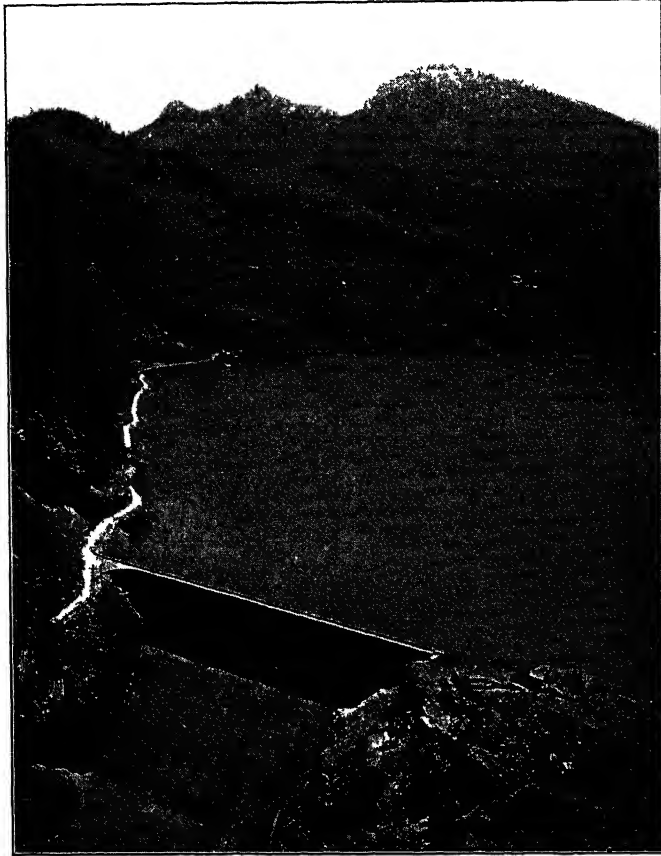


FIG. 208.—Power station near Zurich. Note the admirable site requiring a minimum of dam construction. (Courtesy of Nordostschweiz. Kraftwerke A. G.)

admitting of easy damming, afford favorable conditions (Fig. 208). These power sites are located close to the Swiss Plateau where the industrial life is centered, so that transmission losses are small. Realizing the fundamental importance of this resource to the nation as a whole, the Swiss have developed a wise policy of conservation and control whereby water power has become a national asset yielding a maximum return to the whole population.

These exceptionally favorable natural conditions and their energetic and wise exploitation have not only made water power an element of prime importance among Swiss assets, but have given the country a high rank among nations in development (Fig. 302). In spite of its small size, Switzerland ranks sixth among world countries in total developed water power, while she ranks first in the amount per square mile of area both developed and potential. In per capita electricity output the country is third, only the sparsely settled Canada and Norway exceeding it.

The rate at which the country is utilizing its "white coal" has shown a remarkable increase. The solution of the problem of long-distance electrical transmission in the nineties of the last century opened the way for exploitation of sites in relatively remote locations. By 1925, 96 per cent of all Swiss hydraulic power was transformed into electricity and nearly all was used at some distance from the site.

In the use of current in 1923, light, power, and heat consumed 55.5 per cent; the railways 9.0 per cent; electrochemistry and electrometallurgy 18.7 per cent, while export accounted for 16.9 per cent. By 1926, 90 per cent of all Swiss houses were electrically lighted, and 3 years later it was estimated that 95 to 98 per cent of all machines and two-thirds of the railway trains were driven by hydroelectric energy. Electrification is so complete in some cantons that practically every house and most of the barns are supplied with current. The per capita consumption of electricity in Switzerland more than doubled from 1913 to 1925 and is now the third highest of any country of the world.

While the peak of power production is reached in the summer and that of consumption in the winter, the problem of adjusting the one to the other is not so serious as in Italy. This is being accomplished by linking the various sections of the country, increasing the storage, reducing rates during seasons of greatest stream flow, and also by exporting current, especially during the period when Switzerland can not use it all to advantage.

MANUFACTURING

A Highly Industrialized Country.—In spite of its inland position and its dearth of raw materials and fuel, Switzerland is a highly industrialized country, 44 per cent of the nation's workers being engaged in manufacturing, the highest proportion of any country in the world (Fig. 209). Only about one-fourth of the people employed are agriculturists—slightly less than in the United States (Fig. 316). The proportion of the Swiss population producing raw materials has declined in the last 60 years from 46 to 28 per cent, while those engaged in manufacturing and commerce have increased from 49 to 63 per cent. This emphasis upon industrial development reflects a wise adaptation to their environment.

for such natural handicaps would weigh still more heavily upon other major occupations

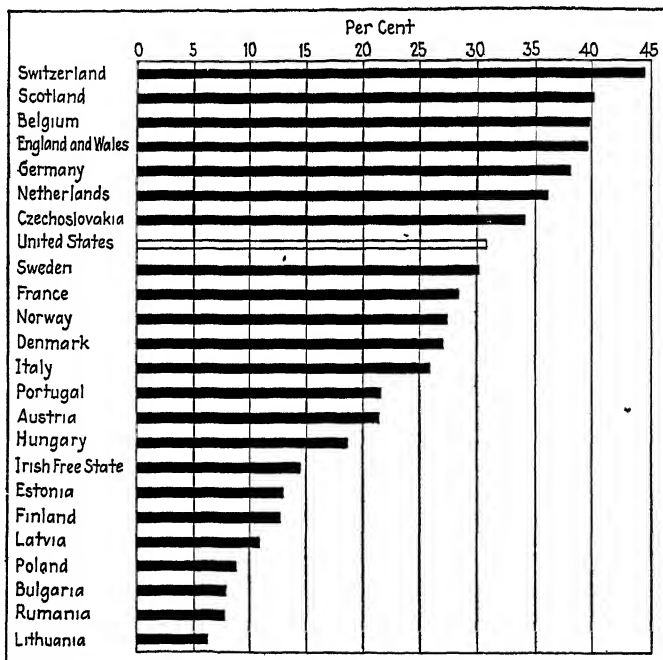


FIG. 209—Percentage of population engaged in industries in various countries (Data from *International Statistical Yearbook*, 1928)

Two assets have served as the chief support of Swiss industrial life—an abundance of (1) highly skilled labor and (2) water power. Of these two, the first is undoubtedly the more important, for the Swiss are a thrifty, hard-working, intelligent, capable people. The wares offered have been notable for their excellence, with quality rather than cheapness their chief appeal, and certain Swiss products have come to be known the world over for their high grade

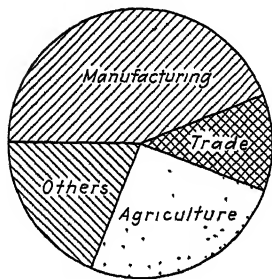


FIG. 210—Classification of population of Switzerland according to occupations. No other nation has such a large percentage engaged in manufacturing

Like Italy, Switzerland, until rather recently, depended upon household manufactures, the absence of coal and iron serving to retard the introduction of the factory system, but the competition of machine-made goods and the solution of the problem of water-power utilization and transmission have resulted in a marked change. Thus from 1910 to 1920 the number of handworkers in embroidery declined from 29,520 to 13,561; in watchmaking from 9,096 to 6,747

in silk gauze weaving from 6,077 to 2,908. These changes are also causing significant readjustments in the distribution of population and in the character of Swiss goods.

Industrial Specialties.—Dearth of coal and raw materials has encouraged the people to concentrate on the manufacture of articles in whose making the labor element plays a large part. Thus watches, clocks, jewelry, textiles, chemicals, printing, and fine machines have become specialties. The character of Swiss wares is reflected in a comparison of the tonnage value of their exports, the average value per ton of those from Switzerland in prewar days being over ten times that from Germany.

Textiles are the most important of the manufactured goods. The country is the leading producer of embroidery, and ranks high also in silk and cotton fabrics, indicative of the degree to which the moist climate, abundance of water power, and difficult transportation to world markets have combined to lay the emphasis upon human labor and products of high quality.

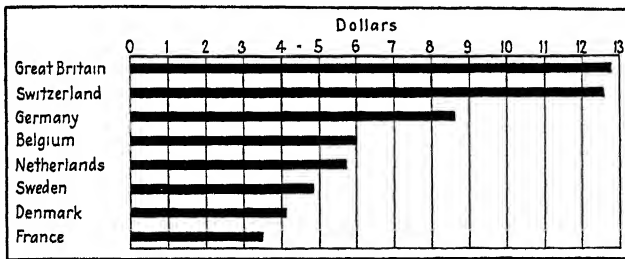


FIG 211 —Per capita consumption of machinery in leading countries in 1924 or 1925.

Watchmaking is the traditional industry, originally household but now transferred to the factory, a change which has greatly increased the output, standardized the product, and facilitated interchange and repair. Especially in the Juras, where poor soil, severe climate, and isolation rigidly restrict choice of occupation, have watch, clock, and jewelry making offered an important means of livelihood. Practically the entire output is for foreign markets and Switzerland ranks as the leading country in export of watches and clocks. There are almost 1,000 small factories in the country, but there is a decided trend toward centralization of the industry. The average annual export is over 20,000,000 watches and parts, with a value exceeding \$50,000,000. The government maintains technical training schools and also a testing laboratory where the better grades are inspected.

In contrast, Swiss chocolate, condensed milk, and cheese have the added advantage of local raw materials, at least in part. The first of these industries is interesting but not comparable in importance with the others mentioned. The average yearly export of chocolate is valued

at about \$6,000,000; of milk and cream, about \$10,000,000; and of cheese, about \$18,000,000.

An interesting and growing industry is that of the manufacturing of machinery centered mainly at Zurich, and initiated largely in response to the needs of the domestic market for textile, water-power, and transportation equipment.

The general trend of occupation seems to be toward a greater and greater industrialization with a consequent increased dependence upon foreign supplies and markets. Water-power development is eliminating the need for part of the coal imports, and electrical distribution allows of decentralization of plants carrying lower capitalization and maintenance costs, similar to the situation in the Po basin.

International Aspects of Swiss Industry.—The great dependence upon neighboring countries for raw materials, markets, tourists, and all communication with the outside world causes political, financial, and economic disturbances in any of those nations to react upon Swiss prosperity. The extraordinary growth of nationalist feeling with high protective tariffs characteristic of post-war Europe has made the situation particularly difficult for Swiss industry—conditions which are not, however, necessarily permanent. That they have made a success of their industrial life is amply evidenced by the fact that they support a comparatively dense population, pay high wages, and maintain high living standards.

AGRICULTURE

Agriculture Limited.—Occupying the heart of the Alps, Switzerland is rich in scenery but poor in cultivable land. Almost one-half of the entire country is covered with forest and meadow, which thrive on the cool, wet slopes (Fig. 212). Peasant proprietorship is the rule and the farms generally small, the holdings, about 244,000 in number, averaging less than 15 acres each. The strip system is common, the average Swiss farm consisting of over 14 separate strips (Fig. 213). Though limited in extent, tillage is intensive and yields per acre comparatively large (Fig. 27). Next to dairy products, cereals and potatoes are the most important. Swiss agriculture is nevertheless insufficient to supply the domestic needs of a population mainly industrial so that a large annual import of foodstuffs is required.

Dairying.—Rural economy centers about the dairy industry and by careful breeding and rigorous elimination of the less productive, the individual cow's average milk output is, with the exception of Denmark and Netherlands, the highest of any country in the world (Fig. 184). The average milk production per cow is about a ton per year greater than that for our leading dairy states of Wisconsin and New York.¹

¹ It is, however, considerably less than for American dairies where the cows are well-bred Holsteins or Jerseys.



FIG. 212.—Typical farm valley in Switzerland. Valleys like this explain the devotion of the Swiss peasant to his farm home and its mountainous environment. (*U. S. Department of Agriculture*)

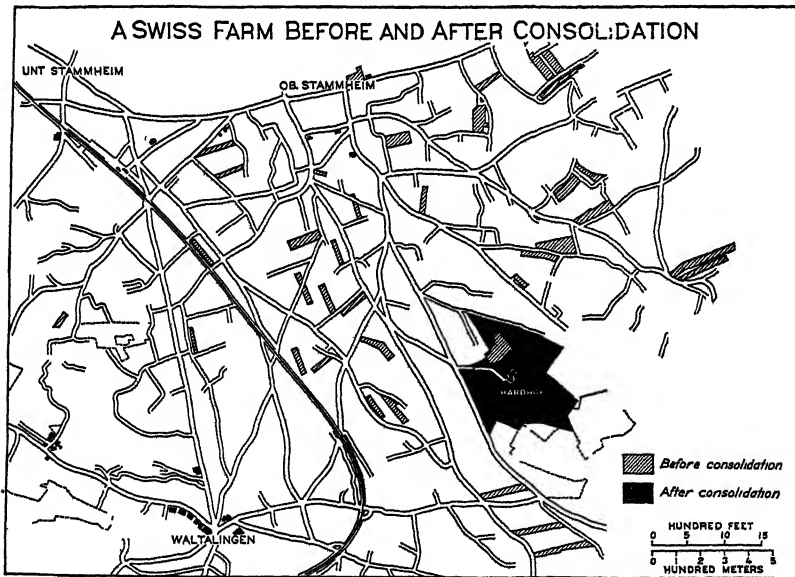


FIG. 213.—The average Swiss farm has a total area of 21 acres in 14 separate strips. (*U. S. Department of Agriculture.*)

As in other mountainous countries the higher meadows or "alps" are utilized during the summer months. These upland pastures are dotted with simple shelters in which the herder lives during the summer caring for the cattle and making cheese and butter which is sent down at regular intervals. Though this "transhumance" is a regularly established custom and serves as a valuable supplement to the valley pastures, it is estimated by Jefferson to contribute only about 6 per cent of the total animal foodstuffs.

The striking feature of the dairying is the large export of cheese, which has an almost world-wide reputation for quality. The isolation of many of the valleys and mountain pastures makes cheese the logical form in which the perishable milk may be marketed. In 1926 besides constituting an important part of the diet—26 pounds per capita—the highest in the world, cheese made up over one-half of the country's dairy exports. Condensed milk and milk chocolate are other important outlets, but until recently little attention has been paid to butter.

TRANSPORTATION

Topography Imposes Formidable Handicaps.—The mountainous topography of two-thirds of Switzerland naturally makes transportation relatively difficult and the construction and maintenance of roads and railroads expensive. The dependence upon foreign countries for raw materials, fuel, and markets, however, as well as the accommodation of the tourist traffic, puts a high premium on an efficient transportation system. Hence the nation has attacked this problem vigorously and has developed a marvelous network of roads and railroads (Fig 214). Switzerland has today the greatest mileage of railway in proportion to her size of any European country, except Belgium and Great Britain. The 3,400 miles of railway represent an estimated outlay of about \$750,000,000 or over \$200,000 per mile, while the average expenditure for automobile roads is about \$125,000 per mile.

The fact that the Swiss plateau, where the most of the people live, is a continuation of that of Bavaria makes communication with Germany comparatively easy. This part of the country also finds two natural avenues of approach through the Rhine and Rhone valleys. The latter leaves the plateau between the Juras and Alps at the western end of Lac Lemman. It is navigable only from Lyon to the mouth, however, so that while the valley is convenient for rail traffic the water route is of little present importance.

The Rhine, on the other hand, is navigable up to Basle, although most of the freight between that city and Mannheim, or Strasbourg, goes by rail, the rapid current in this upper portion of the river making navigation difficult. The maximum river tonnage to date was reached in 1924 when 286,000 tons passed into and out of the Swiss port. The

chief interest in the Rhine lies in the use of the valley as a rail thoroughfare. The river and its valley provide the most direct route to the iron and coal of the lower Rhine and via Rotterdam and Anvers to overseas markets. In spite of the fact that the North Sea is twice as far away as the Mediterranean, the bulk of the foreign trade goes via the north, and the Rhine Valley is Switzerland's main outlet.

Railways.—Access to the south has been difficult owing to the Alpine barrier, yet it is highly desirable that the rich Po Valley be joined with the trans-Alpine region. Although the major relief trends east to west, there are a number of transverse valleys where these streams or their

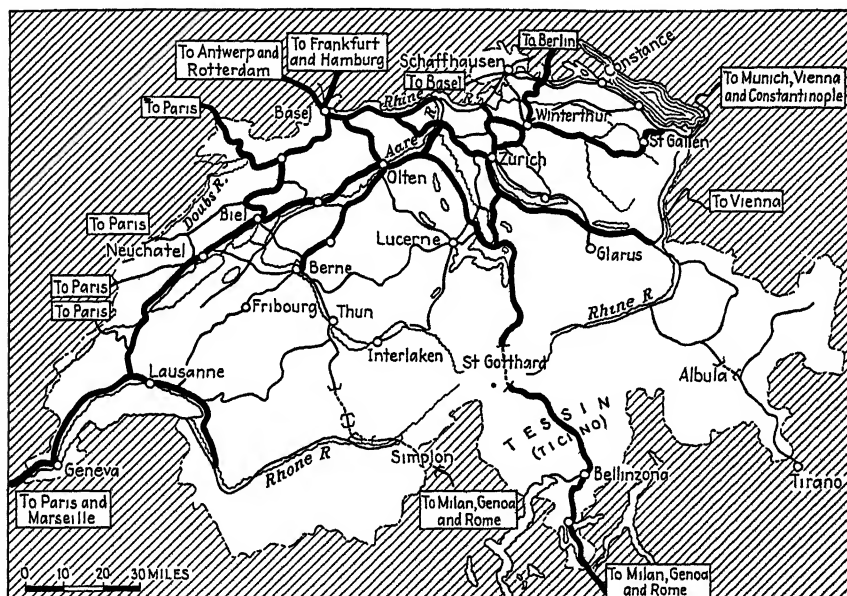


FIG. 214.—Chief routes across Switzerland. Note the predominance of the main railroads, *e. g.*, those with over 10 trains daily, on the plateau. (*Swiss Department of the Interior*)

tributaries have cut across the main ridges. These passes have been much utilized and in recent years many have been supplanted by tunnels beneath them. Some of these, *e. g.*, the Simplon and St. Gotthard, are world-famous engineering feats and have shortened the time for freight traffic between the North Sea ports and Mediterranean coast to less than three days, and, for passengers, to two days. As a consequence of this intensive development of routes, the Swiss section of the Alpine system is much more densely populated than the Austrian portion.

A solution for the problem of motive power for the railways seemed to lie in the substitution of hydroelectric energy for coal, large amounts of which were formerly required. Speeded by the wartime coal shortage,

this change was actively pushed and, as a result, by 1929 two-thirds of the total mileage had been electrified and over 85 per cent of Swiss railway tonnage was moved by electrical power at an estimated saving of over 600,000 tons of coal. Electric traction is better able to negotiate the heavy grades and is obviously much superior for use in the long tunnels. The initial expenditure has put an enormous financial burden upon the roads but it will probably pay in the long run.

THE SWISS PEOPLE AND THEIR PROBLEMS

A Wise Adjustment to Environment.—Switzerland has a population about equal to that of Massachusetts, but an area twice as large. In view of its limited resources, the maintenance of 4,000,000 people with high living standards is a remarkable tribute to their resourcefulness, energy, and intelligence.

The central position, the lack of natural boundaries, and the existence of powerful neighbors have made themselves felt in many ways. There is no common language nor dominant religion, yet there is a strong national feeling. About 71 per cent of the population speak German, 21 per cent French, and 6 per cent Italian. A buffer state, they have not only avoided entangling international alliances which might sacrifice or impair their independence, but, with the aid of their natural defense, they have kept their own territory free from invasions when neighbors were at war. Tolerance and hospitality have marked their foreign policy and the country has long been a refuge for exiles and the home of many international organizations. The high repute in which she is held is a well-earned tribute to the human factor keenly appreciative of the possibilities of rather meager resources intelligently used.

Within the country the distribution of the population shows the same lack of uniformity which characterizes the relief, soils, climate, and accessibility. Genève canton, for example, has a density of 900 per square mile; some of the Alpine provinces, as low as 35; four cities count 100,000 or over, with a total of almost one-sixth of the Swiss population.

Tourist Traffic.—Swiss scenery, world famous for its beauty, has become one of the country's most valuable assets. About 500,000 foreign visitors sojourn there every year, and before the war over 35,000 tourist hotels with 43,000 employees provided for them. In addition, there were hundreds of clinics, sanatoria, boarding schools, and other institutions catering largely to foreign guests. Switzerland's capital investment in hotels is at present over \$750,000,000, or nearly \$200 per capita. Although the hotels are the largest single beneficiaries of the tourist traffic, transportation lines, communication facilities, and shops all benefit. It is estimated that this stream of visitors left, in 1925, not less than \$80,000,000 in the country, a sum almost sufficient to cover

the excess of imports over exports In view of the small size and population of Switzerland these figures assume large proportions

The Swiss have done much to develop their scenic resource. Comfortable hotels and elaborate transportation facilities make the beauty spots easily accessible, and extensive advertising has helped make Switzerland "the playground of Europe." Obviously the tourist industry has certain inherent disadvantages: the traffic is highly seasonal, and since travel is a luxury, it depends much upon the prosperity and friendly attitude of other countries.

FOREIGN TRADE

Large Foreign Trade.—Switzerland has a foreign commerce far out of proportion to its size, population, or resources In 1928 its value was about \$920,000,000 or about \$225 per capita, one of the highest in the world. Although Spain has about five, and Russia thirty-five times the population, their total purchases of foreign goods are about the same as those of Switzerland.

As we have seen, the imports are primarily raw materials, fuel, and foodstuffs, the exports, high-grade manufactures With growing industrialization this trend is being emphasized more and more.

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CHAPTER XVI

AUSTRIA AND CZECHOSLOVAKIA

THE SUCCESSION STATES

Political Background.—Austria-Hungary was established as a political entity about four centuries ago (1526) when Bohemia and Hungary elected the Austrian king as their ruler. At first each of the three states retained much of its independence, but the authority came to be gradually centralized at Wien with Austria the dominant power. In 1867 the monarchy was divided into two states, each retaining control over its domestic affairs but with a common king and a common administration of affairs. Galicia had been added to Austria at the partition of Poland and in 1908 Bosnia and Herzegovina were annexed.

Austria-Hungary was never a unified state because geography, history, and race operated to produce distinct groups having little in common: (1) across the north is a Slavic zone made up of Czechoslovaks in the west, Poles and Russians in the east; (2) across the center, a belt consists of Germans in the west, Magyars in the middle, and Rumanians in the east; and (3) in the south is another Slavic zone. The division of the state into two parts, Austria and Hungary, in 1867 was a political maneuver designed to split the Slavic influence and enable the German minority in Austria and the Magyar minority in Hungary to dominate. The move failed and the conglomeration of diverse elements held together only by arbitrary means threatened constantly to disintegrate into separate political units. The World War furnished the opportunity for the liberation of the various nationalities, and in addition to three new "succession states" carved entirely out of the old empire, large sections were annexed to Rumania, Serbia, and Poland, and a small section to Italy.

AUSTRIA

An Alpine State.—The Alps continue eastward to occupy the greater part of the Austrian Republic and make the country even more mountainous than is Switzerland. Only in the extreme north is there a small extension of the Swiss-Bavarian Plateau, while the extreme eastern and northeastern parts of the republic lie on the western margin of the Danube lowlands. Over two-thirds of the country averages about 3,300 feet in elevation and its mountainous surface has exerted a pro-

found influence upon the commercial and agricultural development of the republic (Fig 41).

The general trend of the topography is from east to west. The great Rhone-Rhine trench between the crystalline and limestone ranges on the north continues with some interruptions from Switzerland into Austria where it is occupied by the Inn, Salzach, and Enns, finally widening into the Wien basin. As a consequence of this disposition of relief features, communication is easy in an east-west direction but difficult north and south. Except in the extreme western section, the drainage is eastward to the Danube, while Vorarlberg province, adjoining Switzerland, lies within the Rhine watershed.

The narrow strip of plateau and plains in the north and east, though of limited extent, plays a dominant role in the economic life of the country. Not only is this a rich agricultural land but cutting across it is the Danube in whose channel and valley lies one of Europe's most important transcontinental trade routes.

Richer Portions Lost.—Present-day Austria is but a poor remnant of the old empire, including about one-fourth of the area of the latter and almost the same proportion of the population. About one-third of its inhabitants are included within Wien, to whom the break-up of the old monarchy and the severance of industrial and commercial ties brought tragic consequences. The condition of economic chaos which followed the war is still felt and activities are so abnormal that a record of present-day activities and accomplishments furnishes little of value. It seems best to examine the more or less permanent assets and then to judge of the possibilities of progress by comparison with a neighboring republic whose natural endowment much resembles that of Austria.

AGRICULTURE

Crop Production Limited.—Austria includes a considerable part of the poorest and most mountainous section of the old monarchy. Over one-third is forested, one-tenth unproductive, and less than one-half at all fit for agriculture. Of all the succession states, she makes the poorest showing agriculturally both in the proportion of employed population engaged in farming and in the proportion of arable land.

Post-war Problems.—With the main interests industrial rather than agricultural, what is now the Austrian Republic depended formerly upon the more fertile and productive farming sections of Hungary, Czechoslovakia, Yugoslavia, and Poland for foodstuffs, and, since there were no frontiers, the movement was unhampered, with the result that little effort was made to develop her own agricultural resources.

Other factors, political and economic, have served to restrict development along these lines. One of these is the strip system commonly

found in central and eastern Europe, as already described. The government recognizes the tremendous handicap which such a ridiculous practice imposes and has been active in encouraging consolidation. The rural element of the population is, however, very conservative, and the movement is progressing slowly. In general Austria does not have the problem of large landed estates which is troubling so many of the neighboring countries, 94 per cent of the agricultural land of the republic being in holdings of less than 247 acres each.

The effects of the war and post-war adjustments have been to seriously reduce agricultural activities. The requisition of crops and live stock for the army, the lack of fertilizers, currency inflation, high wages for labor, and the fixing of maximum prices for foodstuffs all discouraged the production of any crops beyond the farmer's own individual needs. Furthermore, there has been considerable bad feeling between Wien and the outlying provinces of Austria which prevented whole-hearted cooperation.

The trend in land utilization in Austria since 1910 has been toward a reduction of tilled acreage and an increase in the proportion devoted to pasture. Much of the country is better adapted to live-stock raising than to cultivated crops, and Alpine Austria had begun, even before the war, to specialize in high-grade cattle, though Wien depended upon Hungary for 73 per cent of its meat supply. With its present population Austria can hardly be self-sufficing in food production, yet there is room for much improvement, and under the stimulus of necessity the situation is changing.

POWER

Limited Power Resources.—The availability of coal from Moravia and of petroleum from Galicia in the days of the old monarchy retarded the development of water power. As a result the total developed hydraulic energy within the boundaries when the republic of Austria was formed in 1918 was only 170,000 horsepower. The loss of most of its coal and all of the petroleum has stimulated the exploitation of this resource, the amount developed by the end of 1928 being practically twice that in use in 1918 (Fig. 215). Necessary dependence upon foreign capital has been a serious handicap, but a start has been made in electrifying the railways, beginning in the west, farthest from the coal, and in some sections there is now sufficient current for some exports to Bavaria and Hungary in addition to supplying local needs (Fig. 216). As shown in the European power map (Fig. 301), Austria's output of energy is small, little more than in such non-industrial countries as Yugoslavia and Hungary. In 1925, of the total output of energy in Austria, that from domestic coal was about one-half as much as from water power.

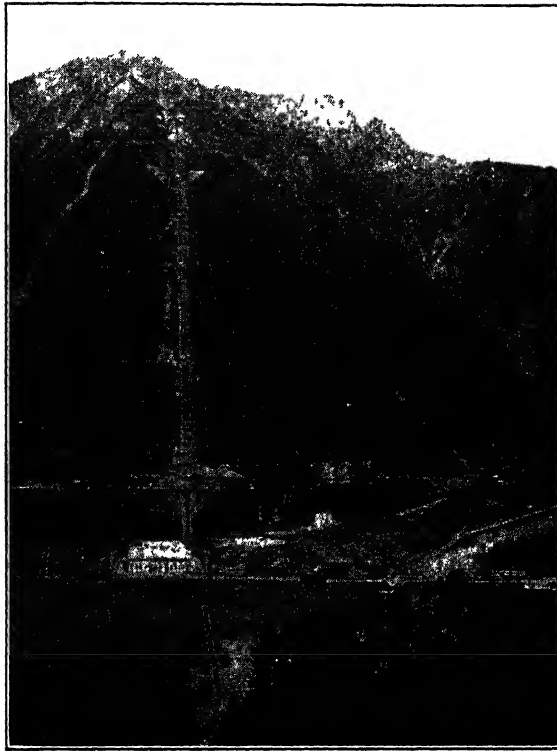


FIG. 215.—Power plant in the Austrian Alps (*Courtesy of F. X. Schaffer, Wien*)

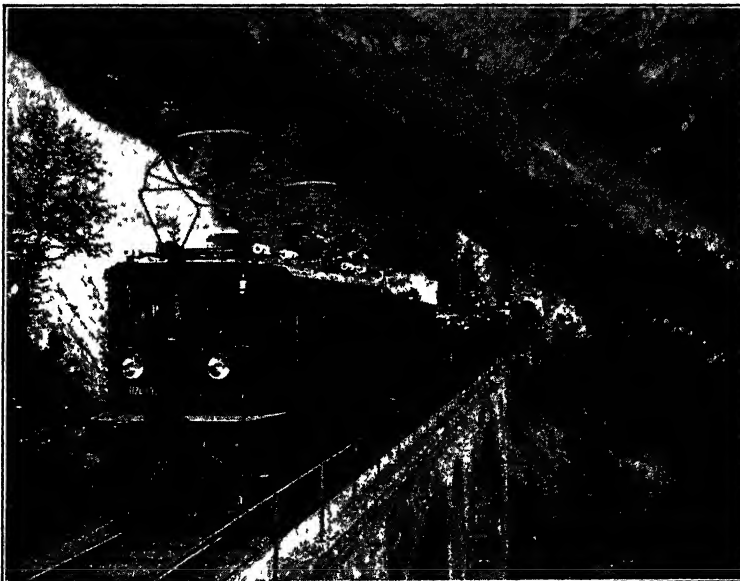


FIG. 216.—Electric train in the Austrian Alps (*Courtesy Österreichische Verkehrswerbung, Wien.*)

INDUSTRY

Industrial Resources and Equipment Reduced.—The decade preceding the World War witnessed a marked industrial trend in Austria-Hungary in response to the rapid growth in population whose increase neither emigration nor agriculture was able to accommodate. This expansion in manufacturing was greatly facilitated by the large variety of raw materials, fuel, and foodstuffs available within the boundaries of the empire. Thus in prewar Austria alone, there were large coal fields in Bohemia, Moravia, and Silesia, iron ores in Styria, timber in the Tyrol, oil in Galicia, and agricultural lands in Bohemia, Moravia, and Silesia. Unhampered by tariff barriers these raw materials could be assembled according to the location of coal, labor, and markets. Under these conditions there had grown up two great industrial areas, one, by far the more important, in the Bohemia-Moravia-Silesia region, a second in the vicinity of Wien and the Styrian coal fields. It is estimated that of the national income of prewar Austria, two-thirds was from industry and trade and one-third from agriculture. Hungary, on the other hand, realized about 60 per cent from agricultural activities. Wien, through its advantages as the capital and the focus of great transportation routes, became the great financial and commercial center from which Austria's industries were directed.

The break-up of the old empire left the Austrian Republic with only a remnant of the old industrial equipment and resources. Czechoslovakia possessed the main industrial region, the major part of the coal, and much of the better soil. Austria retained considerable timber and excellent iron ores, but very little fuel and no coking coal. With nine-tenths of her former markets gone, the industrial capacity of present Austria is far in excess of her domestic requirements unless she manufactures for export and can rely on imports of fuel, raw material, and foodstuffs. This would appear the logical solution. In some cases the various branches of large industrial enterprises were widely scattered, the various steps in manufacturing being completed in different regions. Thus the textile industry had much of its spinning done in Austria, the weaving in Bohemia, the finishing in Austria, and important markets in Poland and Hungary. Dismemberment places these various units in different countries whose intense nationalistic efforts and hostility toward the old domination of Wien have made their integration and cooperation extremely difficult. Further maladjustment resulted from the wartime expansion of Austria's industries, leaving them with a total capacity one-fifth larger but an output one-fifth less than in prewar days and a large unemployment as a result. Austria has the facilities for producing a surplus of manufactures of wood, electricity, paper, and steel.

Metallurgical Industries Limited by Lack of Coal—Of the industries the metallurgical occupy first place, based largely upon the manufacture of excellent steel from the high-grade iron ore which, though only moderately rich in iron (40 per cent), is practically free of sulfur and phosphorus. The chief handicap is, as indicated above, the lack of domestic coking coal so that most of the fuel must be imported. Of some 10,000,000 tons required, only 3,000,000 are produced at home, and of this latter amount five-sixths are lignite. Imports are mainly from the upper Silesia and Teschen regions and the high cost of such fuel naturally retards progress in industry, especially iron and steel. A move full of significance for the reestablishment of integrated industries in the succession states is to be seen in the purchase by the chief Austrian steel company of an interest in Silesian coal mines.

Textiles ranked next to the metal industries in importance and like them suffered much by the political changes resulting from the war. Much of the spinning required imported raw materials, hence the mills tended to locate along the great transportation routes found in lower Austria (40 per cent) and Vorarlberg (30 per cent); the weaving, on the other hand, sought cheap labor and fuel and found both in present Czechoslovakia. Finishing plants centered again in the Wien district close to the most important local market. Thus present-day Austria inherited 30 per cent of the looms of the old monarchy while similar conditions characterized the worsted and silk industries. As a result there was twice as much spinning as the weavers could use. It would seem logical to export yarn to Czechoslovakia, return it for finishing, dyeing, printing, etc., then export it to Galicia and Hungary, but high tariffs interfere.

TRANSPORTATION

Routes.—Austria, as we have seen, lies directly in the path of some of the great routes running from the North Sea countries to the Mediterranean, two of them crossing near its eastern and western extremities. The Brenner route, joining Germany and the Adriatic, crosses western Austria where the Adige cuts through the southern ridge, the Inn the northern, their headwaters being separated by a low pass, the Brenner, across the central range. This saddle is low enough—4,500 feet—to be traversable even in winter and requires no tunnels. It is not only the lowest gateway across the Alps but one of the few places where but a single range need be traversed. The Brenner is one of the most famous passes of history and the route over which the Romans brought produce to exchange for goods from northern Europe. As the easiest route from Italy to Germany it helped to cement the political and commercial ties of these two countries.

The Danube with its connecting routes is of such general importance to the countries of all southeastern Europe that they have come to be

known as the "Danube states," and, as one of the great waterways, deserves the extended description given elsewhere (pp. 81-83).

It should be noted that the extreme western part of Austria is in the Rhine drainage basin, and, until the construction of the Arlberg Tunnel (6 37 miles long and at an elevation of 4,300 feet), the western province of Vorarlberg was much more accessible to Switzerland than to Wien

FORESTS

Wood Industries.—The country is rich in timber, 37 per cent of its area being forested. In Europe it is exceeded only by two others, Finland and Sweden, and equaled by one, Russia, in the proportion of forest covered land. Woodworking is also of interest, since, of all Austrian industries, it furnishes the largest net export.

About three-fourths of the forests are evergreens, mostly pine. As a result of this predominance of softwoods the manufacture of structural timber, wood pulp, and paper is important, while there is an actual import of hardwoods. As in Switzerland considerable areas are in sections either difficult of access or else in regions which require "protective forests." Almost one-half of the timbered area of the country is in large estates, *i.e.*, over 1,250 acres each. In general both government and private interests have been active in conserving the forests with the idea of not only insuring future wood supply but at the same time of protecting water resources and reducing soil erosion. Approximately two-thirds of the pulp-producing capacity of the old empire passed to Austria. These mills use mainly hydraulic or hydroelectric power, the paper industry, however, is still dependent upon coal for 85 per cent of its energy.

WIEN

Geographic Advantages.—Geography and politics combined to make Wien one of Europe's leading centers of art and culture, of commerce and finance. Its position at the crossing of great trade routes is its chief asset, all the more important because it is situated in a part of the continent where topography has rigidly restricted movement to well-defined paths. The city lies in a small plain, the smallest of the three Danube basins, at the place where that great waterway separated the Alps from the Little Carpathians. Here converge routes leading (1) up the Danube to Bavaria, thence by canal to the Main and Rhine or by the Inn over the Brenner to the plains of north Italy; (2) down the Danube to the Black and Aegean seas; (3) up the March to the Oder and via the Moravian Gate to the north German plain and the Baltic; and (4) to the southwest over the Semmering Pass to Triesté. This superb focal position made it the natural center from which the commerce, banking, and

industry of much of southeast and central Europe was directed. With the great iron-ore deposits near by and fuel and raw materials available within the old monarchy, the Wien district became an important industrial section, second only to Bohemia in the old empire.

In addition to these natural advantages Wien was the capital of an empire of 30,000,000 people, embracing 116,000 square miles. As such it became the home of thousands of soldiers, government officials, and tradesmen as well as the seat of a great array of institutions.

The break-up of the old monarchy suddenly reduced the area of the nation to less than one-third of its former size and from a population of 30,000,000 to 6,500,000. A mere remnant, mostly mountainous, was left with a great city having the administrative and business machinery designed for the direction of the political and economic life of a large empire, and readjustments have brought tragic consequences. Its importance as a political and cultural center must necessarily be reduced. Nevertheless, its natural advantages remain, and, with a return of better feeling and a spirit of cooperation among the succession states, perhaps much of the old commercial and financial prestige may eventually be restored. None of the other capitals possesses its advantages, and distinct benefit may be derived from having a single commercial center for this much divided part of the continent.

COMMERCE

Foreign Trade.—As a consequence of the abnormal conditions prevailing since the World War, the imports have greatly exceeded the exports in value, indicating, in this case, an increase of indebtedness. From 1920 to 1926 her exports paid for only 60 per cent of her imports. This, in effect, is a smaller proportion than that in countries with similar lack of balance but having large invisible export items, such as Great Britain with 66 per cent. Since stabilization, her income from foreign investments and various services has covered only 60 per cent of the deficit, and the balance has had to be made up by the export of capital and by borrowing. This condition must of course be temporary.

Increased agricultural output, the substitution of water power for imported coal, the restoration of the banking and other commercial activities of Wien, and trade agreements with neighboring states will facilitate exchange and aid her industries. These with the fostering of the tourist traffic are all looked to as aids in the solution of the grave economic problems.

Although Trieste is only about one-third as far from Wien as is the Baltic, and access to ports formerly within the empire has been guaranteed Austria, her main trade routes lead to the north rather than to the Adriatic.

AUSTRIA, A POLITICAL ENTITY

Can Austria Maintain a Separate Existence?—This is a question which has been often asked and by many answered in the negative. The career of Switzerland, whose natural endowment is so strikingly similar to that of Austria, is very suggestive.

Likeness to Switzerland.—Both republics are mountain-girt lands lying astride the Alps, liberally endowed with scenic resources but meagerly with cultivable land. Raw materials and coal supplies are scant or lacking, but there is much water power and an abundant labor

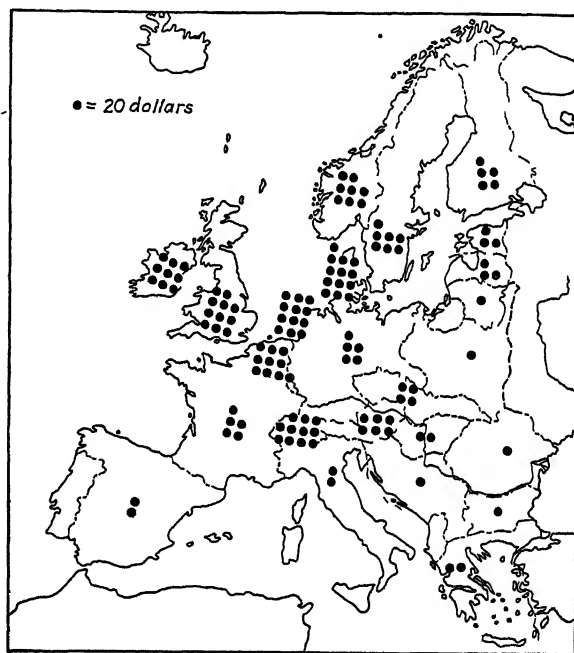


FIG. 217 —Per capita foreign trade in 1928.

supply. Both are inland countries lacking the stimulus of cheap ocean shipping or fish resources, yet they lie athwart great transcontinental thoroughfares and hence have exceptionally efficient rail service.

Swiss Accomplishments.—With this natural setting Switzerland has turned her attention to industry rather than to agriculture and ranks first among all countries in the proportion of her population engaged in manufacturing. She has specialized in highly finished goods requiring much skill and handwork and but little raw material. Her goods bear the stamp of merit and have won a world-wide reputation. General agriculture, on the other hand, is necessarily restricted in extent but highly remunerative in the fertile valleys, the country ranking second among all nations in the productivity of its cultivated land, while the

mountainous terrain has emphasized dairying in which Switzerland occupies high rank

A second supplementary source of income lies in the tourist industry and the Swiss have with their customary thoroughness and efficiency made the entertainment of the visitor at once a fine art and a lucrative business.

Austrian Resources Compare Favorably with Those of Switzerland.—

The potential natural resources of Austria are possibly better than those of Switzerland While the latter has considerably more potential

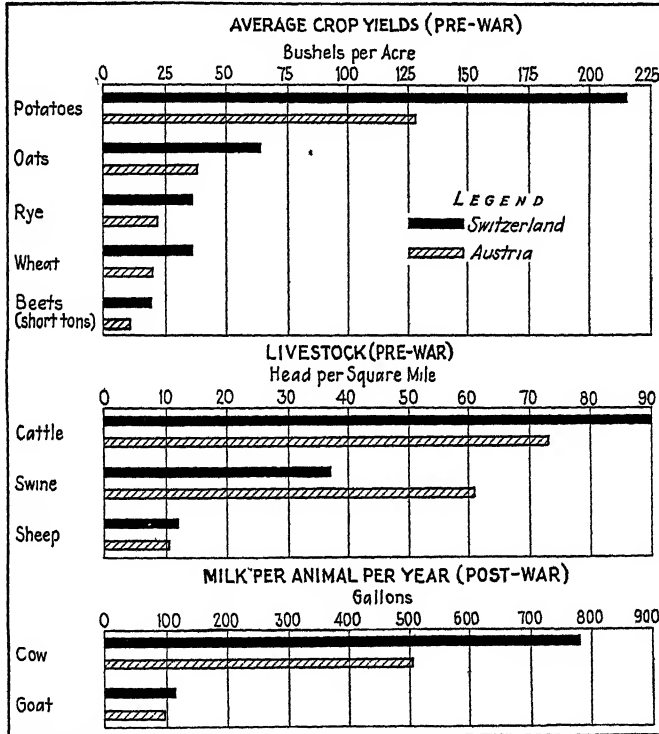


FIG. 218.—Contrasts in accomplishment between two Alpine countries possessing much the same resources

water power, the former has some coal and considerable lignite. Austria has also a somewhat larger proportion of arable land, considerably more forest in proportion to the total area, and a large deposit of excellent iron ore. Although the scenic attraction of the Swiss Alps is probably greater than that of the Austrian portion of those mountains, Wien has no duplicate in Switzerland.

Comparative Retardation of Austria.—However the greatest contrast appears in the progress made in the two countries in exploiting their resources (Fig. 218) Thus in water power Switzerland has developed

75 per cent of her total supply, Austria, less than 20 per cent. The former's yields of staple crops (prewar) ran from 40 per cent to 90 per cent higher than those of the latter. In the animal industries, so well adapted to mountainous regions, Switzerland had many more cattle, about the same number of sheep, but not nearly so many swine. More significant than numbers is the grade of animals raised. Swiss cows average over a ton of milk a year more per head than do cows in Austria. Switzerland in 1925 sold abroad dairy products to a value of \$4,500,000. Her neighbor is far from supplying even her own needs for meat and dairy goods, supplying only 46 per cent of her meat, one-third of her butter and one-half of her egg consumption. It is not without significance that Voralberg, on the Swiss border, has come to be the country's most advanced and progressive dairy province. The Austrian Government estimates that there is fodder and forage within the country to supply an increase of 65 per cent in cattle and 40 per cent in swine.

Little has been done so far to develop the tourist industry, and the splendid mountain scenery remains mostly unknown and inaccessible to the foreigner.

If Switzerland by long years of experiment and study has made the necessary adjustments and in spite of rather meager resources, is supporting a dense population with a high standard of living, Austria with resources averaging as good if not better should be able at least to do as well with a population whose density is only about four-fifths as great. In the sudden change from being the focus of a great empire to a small republic, there must be much loss and suffering, but given time there would seem to be no reason why Austria should not become fairly prosperous.

CZECHOSLOVAKIA

A Promising State.—Of the various states which emerged from the wreckage of the old Austro-Hungarian Empire, Czechoslovakia is by far the most promising. Its resources are varied and abundant, the agricultural and industrial development exceptionally well balanced, and the Czechs, who constitute the dominant political group, are an able and intelligent people. The character of the population and their homeland holds the promise of making their country one of the strong states of central Europe.

Minorities.—Czechoslovakia is a Slavic wedge projected far into middle Europe, with Germans on both the north and south. The main part of the population is made up of two closely related Slavic groups, the Czechs and the Slovaks. There is a considerable alien minority making up more than one-third of the total population—in fact it is estimated that for 90 per cent of its length the boundaries of Czechoslovakia run through non-Slavic populations. The most important

minority group is that of the Germans who form a fringe near the border of Bohemia. They and the Hungarians were in political control until the World War, and now constitute a powerful and aggressive element opposed to the newly established regime. The question of minorities has been one of the country's major problems.

THE COUNTRY

Location and Extent.—On the map of Europe Czechoslovakia is conspicuous because of its peculiarly elongated shape and central position (Fig 219). The country lies near the center of the continent, about equidistant from the Baltic and Adriatic, the North and Black seas. From east to west it stretches about 600 miles, while its north-south width varies from 50 to 125 miles. This inland position and the extraordinary length of its boundary implies a large number of border states.



FIG 219—Provinces and chief cities of Czechoslovakia. (Courtesy of *Current History*, published by the *New York Times*)

The necessity for crossing foreign territory in order to reach the sea and the great length of international frontiers provide a fertile field for misunderstandings and make Czechoslovakia's foreign relations difficult.

The broad western part of the country has as its dominant physical feature the old Bohemian Massive. The narrower eastern portion includes the southern slopes of the Carpathians. Separating the two is a depression occupied by the Morava (March), a tributary of the eastward flowing Danube, and by the northward flowing Oder.

Bohemian Plateau.—Bohemia is a plateau almost completely rimmed by forest-clad mountains. On the southwest is the Bohmerwald, the largest timbered section; on the northwest, the Erz Gebirge long famous for their minerals; on the northeast, the Sudetes; and to the southeast the Moravian Heights. The plateau is tilted northward and its drainage, gathered by the Elbe and its tributaries, escapes via the Elbe Gate between the Erz Gebirge and Sudetes, across the German plain to the North Sea. Bohemia is underlain with old crystalline rock, except

the central and northeastern sections where there are sedimentaries. The valleys of the lower Moldau, the Elbe, and the Eger lie in this limestone and are covered with alluvium providing the most fertile portion of the plateau. The eastern part of this massive is drained southeastward by the Morava and its tributaries to the Danube.

Moravia.—In general the lowlands of Moravia are fertile and highly productive. There are in addition some coal deposits, though the richest coal fields are in Silesia to the northeast. Here is the Ostrava-Karvinna district, the southwestern part of the Moravian-Silesian-Polish basin, of which Czechoslovakia's share is about one-sixth. This coal, with the lignite in northwestern Bohemia, furnishes the chief basis for the industrial growth of the country.

The narrow gap between the Sudetes and the Carpathians through which the Oder flows is known as the Moravian Gate, one of the most important passes of Europe. Not only is there a break in the mountain wall, but three important rivers rise close to the opening, the Oder, whose channel lies in the gap, leads to the Baltic Sea; the Vistula leads northeast to the Baltic; and at the south entrance of the gateway is the upper Morava, leading to the Danube. So low is the divide between the Oder and Morava that the two channels have been joined by a canal. The value of this gateway at the junction of three important routes is further enhanced by the presence of the great mineral deposits of Upper Silesia just to the northeast of the opening.

Slovakia and Ruthenia.—In the east, Slovakia and Ruthenia, much more mountainous, occupy the southern slope of the Carpathians and include the margin of the great Hungarian Plain. The drainage is to the Danube which for about 100 miles forms the frontier. In Slovakia the south-flowing rivers have cut the country into a series of parallel ridges with more or less isolated valleys. In Ruthenia there is an extension of the Hungarian Plain. In eastern Czechoslovakia the plain areas are fewer, the soils less fertile, and the mineral deposits of far less importance than in the west. Its forests and pastures occupy much of the rough slopes, while the lower valleys provide agricultural lands of only moderate fertility.

CLIMATE

The climate of Czechoslovakia is rather continental in type with cold winters. The Elbe is closed by ice for about 11 weeks each year and the snow of the Carpathians is regularly used in logging operations. The rainfall is moderate in the mountains—30 to 35 inches—but rather light—15 to 20 inches—on the plains. Fortunately about two-thirds of the precipitation occurs in the summer when most needed; moreover, because of the altitude, that season is not very hot.

AGRICULTURE

Agriculture and Industry Well Balanced.—In spite of a marked industrialization, agriculture still employs a somewhat larger proportion of the population than does manufacturing. As a whole, the country is almost self-sufficing in foodstuffs, a condition which facilitates its economic stability. In spite of its rough topography the arable proportion is high (42 per cent), the part unproductive is extremely small, while forests and pasture occupy about one-half the total surface.

Czechoslovakia is a part of the great temperate belt of grain and root crops, which extends across north and central Europe. Sixty per cent of the arable land is in grain and the predominance of rye, oats, and barley is indicative of the large areas of poor or only moderately fertile soil—especially in Slovakia and Ruthenia, with wheat and sugar beets monopolizing the richer land, corn being restricted to southern Slovakia.

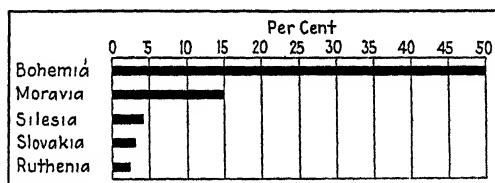


FIG. 220.—Sectional contrasts in illiteracy in Czechoslovakia, 1927. Note the consistent increase from west to east

The best agricultural region is, as already indicated, in northern Bohemia, in the lower valleys of the Moldau, Elbe, and Eger, where, as in southern Slovakia, there has been a rapid increase in sugar-beet production. The republic has, in certain years, ranked first among exporters of beet sugar and is second only to Germany in production. About 70 per cent of the output is for export, amounting in recent years to over 1,000,000 tons annually.

Progressive in West, Backward in East.—The relative importance of agriculture, the special phase which is emphasized, and the methods used in western Czechoslovakia are in marked contrast with those of the east. In the latter, *i e.*, in Slovakia and Ruthenia, over two-thirds are peasant farmers, in the west, over one-half live by industry and commerce. Here, too, agriculture is more intensive and methods scientific and modern, while, in the east, greater emphasis is laid on the pastoral phase and procedure is governed by tradition and chance (Fig. 220). General illiteracy and backwardness characteristic of the population formerly dominated by the Magyars is reflected in their agricultural practice.

Land Reform.—Until 1920, land tenure in Czechoslovakia smacked strongly of feudalism. In no other country of central Europe was there such an unequal distribution of land ownership. At one time it is said

that one-sixth of all the territory of Bohemia was in the possession of 33 men, while less than 1 per cent was owned by 373,000 peasants. Seven-eighths of the population of Bohemia owned no land at all until 1920

Many of these enormous estates were lands confiscated as a result of the religious and political wars. With the independence of Czechoslovakia and the end of control by the German and Magyar elements, a comprehensive scheme of agrarian reform was planned. In 1920 the expropriation of all estates of over 475 acres, if cultivated, and of 350 acres, if uncultivated, was ordered. The former owners were to be paid by the new possessors. Some 3,250,000 acres of cultivated land and twice that amount of forest were taken over, so that Czechoslovakia is now a country of moderate-sized and small farms. In general the reform has been carried out very satisfactorily, with an increased interest in farming and with yields which are actually larger in spite of the difficulties which inevitably accompany such a readjustment.

FORESTS

An Important Resource.—One-third of the country is forested, mostly by conifers, and timber constitutes an important part of the national wealth. Much of that privately owned prior to 1918 was in large estates whose expropriation is expected to increase the state-owned areas. In addition to supporting extensive wood-consuming industries, there is a large export of timber and wood products. Although the east has the greater proportion of tree cover, the bulk of the wood manufactures is in the industrial west. Paper and pulp mills which prefer the softwoods, are densest about the mountainous rim of Bohemia, above the deciduous forest level. Almost one-half of the wood cut is for fuel.

Resources Varied.—In general Czechoslovakia has the varied resources and activities which make it almost economically independent. Its chief concern in this regard is in retaining adequate markets for its industrial exports. The major domestic problems consist in welding together the diverse racial and social groups into a unified state, while its foreign policy is centered upon the problem of securing the goodwill of its neighbors through commercial and defensive alliances.

INDUSTRIAL DEVELOPMENT

Coal and Lignite.—Czechoslovakia's coal and lignite resources are of fundamental importance to the country's economic progress. The coal of the Ostrava-Karvinna district is of coking grade and for that reason is in great demand both for domestic use and for the adjacent industrial districts of Poland and Germany, more particularly since the other Upper Silesian deposits are not suitable for this purpose (Fig. 253).

It supplies three-fourths of the country's output and about one-half of the product is exported. Supplementing the coal production is lignite, chiefly from the northwestern frontier of Bohemia, the annual output being about 50 per cent larger in tonnage than is that of coal.

Water Power.—Thus far water-power development has received little attention, largely because of the abundance and accessibility of coal, and, in prewar days, of petroleum also. Of the total water-power resources, estimated in 1929 at about 1,000,000 horsepower, scarcely 15 per cent have been developed, 80 per cent of the total thus far exploited being in the western part. Some 13,000 industrial plants use water power, mostly woodworking and textile mills. The average size of these plants is small. Although coal furnishes now about 96 per cent and water only 4 per cent of the power used, there is an active campaign for an increased exploitation of the latter and for the electrification of the railways.

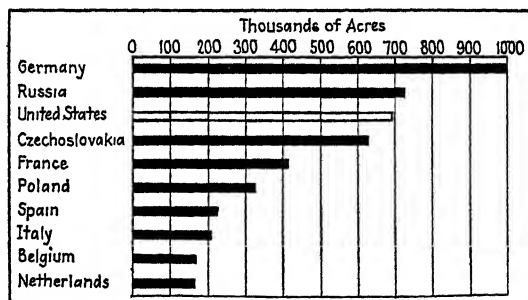


FIG. 221.—Sugar-beet acreage in certain European countries, 1921 to 1925 average. Compare with Fig. 192. (*U. S. Department of Commerce.*)

A Sound Basis for Industrial Development.—Czechoslovakia possesses the basic raw materials and power resources for an extensive industrial development. There is, as indicated above, an abundance of coal and lignite, as well as a great variety of raw materials for all of the food, brewing, glass, porcelain, and wood industries, part of the iron, chemical, and leather plants, but practically none for the textile and fertilizer plants. The most serious deficiency is in iron ore whose low-grade requires that the major supplies be imported from Austria and Sweden.

The western part of the country, including Bohemia, Moravia, and Silesia, is, as we have seen, the industrial section, the contrast with the east being even more marked than in agricultural development. The west possesses coal, the larger part of the raw material supplies, and the stimulus of near-by industrial Germany.

As a result of its natural advantages this was the chief industrial district of old Austria-Hungary. Bohemia inherited four-fifths of the manufacturing equipment of the old empire but only one-fourth of the

population, so that about one-half of her manufactured wares must now cross the frontier. The lack of protected markets and the deficiency in domestic iron ore have forced the country's industries to specialize in high-grade wares in which there is less competition.

Manufactured Specialities.—Of the characteristic industries several have developed a very wide reputation, especially glass, of which Jablonec ware of northern Bohemia is best known. Over 200 glass factories employ some 60,000 people. Bohemian hops are highly prized and with local barley serve as a basis for brewing, one of the country's major industries, centered mainly at Plzeň and Budejovice (Budweis). Steel production, chiefly in the coking-coal district, is comparable in output with that of the Saar basin or of Italy. The metal industries specialize in agricultural machinery and in the equipment for sugar factories and breweries, while the forests support important paper, pulp, furniture, and toy manufactures.

Considering the small proportion of the land which is unproductive, it is felt that the problem of the increase in population can best be solved by industrial rather than agricultural expansion. About 40 per cent of the national income is estimated to be derived from manufacturing as compared with 34 per cent from agriculture.

TRANSPORTATION

Factors Influencing Transportation.—Transportation facilities of Czechoslovakia have been greatly influenced by (1) the mountain-plateau character of the topography, (2) the position far inland on the continental divide, and (3) the long east-west extent athwart some of the great transcontinental routes.

In the west, Bohemia, although almost hemmed in by mountains, has an important break where the Elbe leaves via the Saxon Gate (Fig. 222). Likewise the absence of any continuous barrier in the southeast gives access in that direction, so that there is an important route across the plateau through the Saxon Gate via Praha and thence to the Danube.

The second break at the eastern edge of the plateau, the Moravian Gate, joins the German-Polish plain with the Morava Valley and by this to the plain of the middle Danube. At the north entrance of this gap is the densely populated and highly industrialized Upper Silesia region from which the Oder and Vistula lead to the Baltic. Southward this route joins the one crossing Bohemia to focus upon Bratislava, the country's chief Danubian port.

Since eastern Czechoslovakia is on the southward-facing slopes of the Carpathians, it faces Hungary with whose capital it has physical and commercial ties. Bohemia, although part of Austria, had a natural focus of routes at Praha. One of the main problems of the new state

has been to reorient and unify the railways so as to integrate eastern and western Czechoslovakia commercially as well as politically.

The great bulk of the foreign trade is by railways in spite of the fact that navigable waters lead both to the north and to the south. For water traffic the Elbe is by far the most important. In 1925 freight destined to or from the country used the Danube to the amount of 833,882 tons; the Oder and Elbe, 2,709,365 tons. As a matter of fact, the navigability of the Elbe, Moldau, Oder, and Morava is limited. Plans are under way for joining the Elbe with the Danube, but if accomplished it will require some 10 years at least. The Versailles Treaty internationalized the

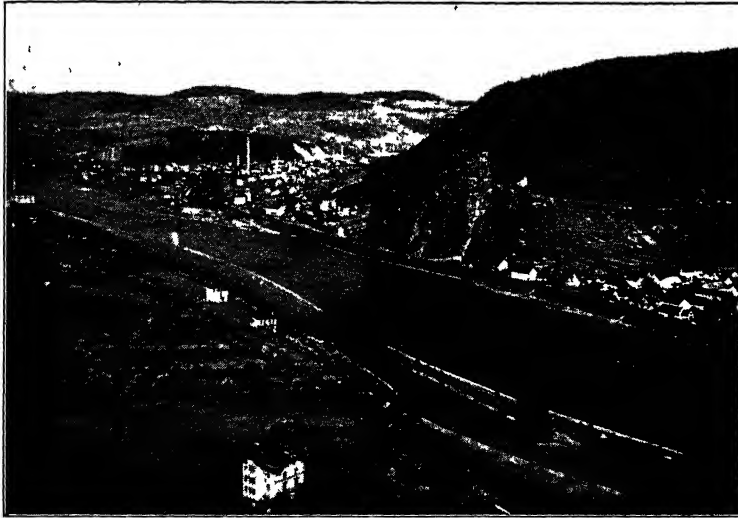


FIG. 222 —The Elbe in Bohemia near the Saxony boundary (Courtesy of Czechoslovak Legation, Washington, D. C.)

Oder, Vistula, Elbe, and Danube, as well as guaranteed to Czechoslovakia port facilities at Hamburg, Stettin, Danzig, and Trieste.

The main part of the oversea traffic goes through Hamburg, Trieste ranking second, and rivalry between the two has been keen. Before the World War the German port handled about three times as much of the country's trade as did the latter. Foreign commerce is primarily with northwestern Europe rather than with the Balkans, the latter accounting for only about one-third of the total.

Industrial exchange is, as already indicated, all important in the commercial life of the state, since Czechoslovakia is primarily an exporter of manufactured goods and an importer of raw materials.

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CHAPTER XVII

SCANDINAVIA AND DENMARK

A Large Peninsula of the Far North.—Scandinavia is the most northerly as well as the largest of Europe's many peninsulas. In latitude, Norway and Sweden correspond to Alaska, with the climate of whose coast they have much in common. Over 1,000 miles in length, the peninsula would, if swung around upon its southern tip as a pivot, reach almost to Sicilia or beyond the Pyrenees. Its width averages about 250 miles, but in the south widens to twice that

The location as well as the great length of Scandinavia from north to south entails important consequences, both climatic and commercial. About one-third of the whole is north of the Arctic Circle and, in spite of the modifying influence of the ocean, possesses serious handicaps characteristic of high latitudes. Just as truly as Egypt is the child of the Nile, is Scandinavia redeemed by the North Atlantic: the one rescues a land from scorching drought, the other redeems from perpetual frost.

It should be noted that Scandinavia lies between two seas, both of which commercially are "blind alleys." Unlike the through traffic of the Mediterranean-Suez route, which gives unimportant ports the advantage of frequent service, only such shipping as is attracted by the northern part of the peninsula either in the Arctic or the Baltic will go thither.

SURFACE FEATURES

The Physical Framework.—Though physiographically a peninsula, Scandinavia is essentially an island, for Lapland, the land junction, is a commercial barrier and intercourse with the continent is preferably by way of the sea. An old block, it is so tilted that the western slope is short and steep, the eastern, more gentle. The drainage divide is not a sharp ridge, however, but rather a long, barren, dissected plateau about 100 miles in width and over a $\frac{1}{2}$ mile in height. On the west the steep slope drops precipitously to the sea which penetrates it through numberless fjords—some of them reaching 100 miles or more into the interior. On the east the descent to sea level is much more gradual and accomplished by a series of broad terraces. The depressions here which correspond to the Norwegian fjords are the lakes,¹ which, as in most recently glaciated countries, are present in large numbers; in fact the proportion

¹ Note the similarity in origin to the lakes of north Italy (see Chap. XXIV).

of the total surface occupied by inland waters is, with the single exception of Finland, the largest in Europe.

The Mountains an Effective Barrier.—The northern two-thirds of the boundary between Sweden and Norway is located on this plateau, so barren and uninhabited as to provide a most effectual barrier. Southward from Trondheim, however, the boundary, instead of continuing southwest on the highland, turns south so that the whole of the southern part of the plateau is within Norway, giving that country the productive plain about Oslo (Fig. 223).

The general trend of the relief makes Norway face the Atlantic and Britain; Sweden, the Baltic and Germany. Communication is much easier between either of the peninsular countries and Denmark than

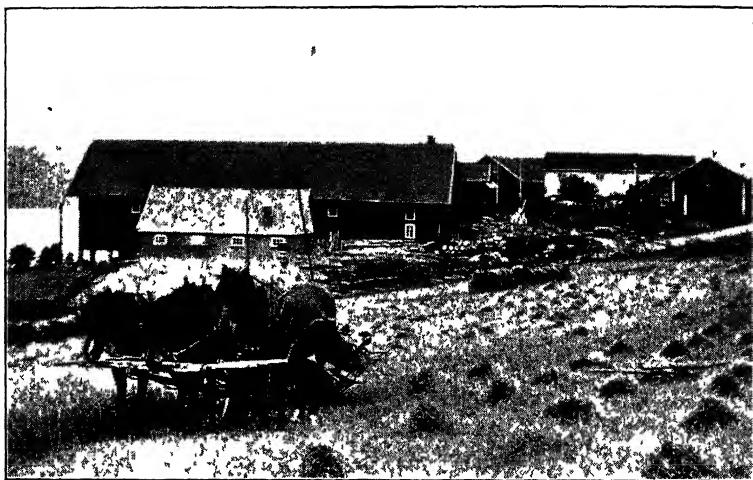


FIG. 223.—Typical farm in southeastern Norway on the Oslo plain. Note the access to water in the background. (Courtesy Norwegian Government Railways)

between the two themselves, and for some time in their history it was Denmark that bound the two northern nations into a political partnership.

A Sinuous Coast Line.—Scandinavia has, especially along its western edge, one of the most irregular coast lines to be found anywhere in the world, the innumerable indentations and fringing maze of islands forming a pattern most intricate (Fig. 224). The total length of the peninsula's margin, not counting the minor irregularities, is about 6,000 miles—long enough to span the North Atlantic twice over. Norway alone has a *detailed* coast measuring a total length equal to half the circumference of the earth.

The Fjords.—The fjorded coast of which western Norway affords a classic example owes its form to the action of several agents. Originally the steep west-facing slope of the highland was dissected by rivers which

carved deep valleys. During the great Ice Age glaciers moving seaward through these valleys, greatly deepened them, and also changed their cross section from a V to a U shape. With the melting of the ice, and probably also a sinking of the coast, the ocean waters penetrated the seaward openings of the valleys, forming fjords. Their walls are often perpendicular or nearly so, and may extend for a half mile or even a mile above the sea level. The water is very deep, occasionally two

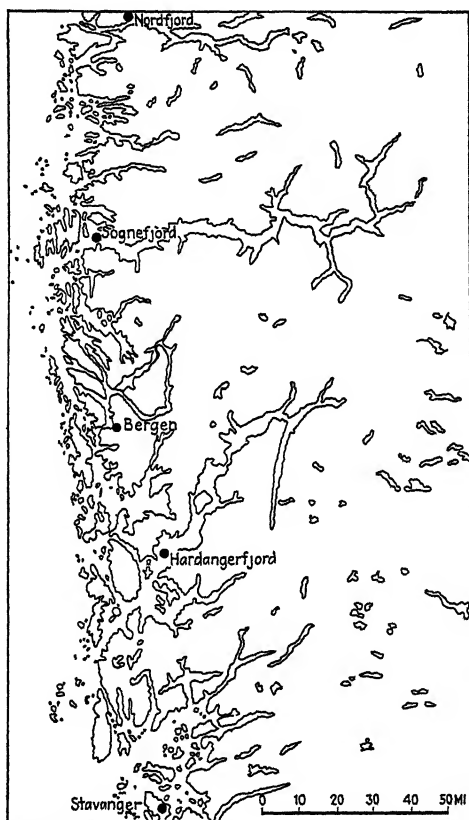


FIG 224 —A section of the southwestern coast of Norway

thousand feet, though a sill at the ocean entrance marking the former limit of the ice tongue makes the water somewhat shallower there. At the landward end there is often a delta where the stream, whose lower course constitutes the fjord, enters the sea. Often the only approach from the land is via this narrow stream valley upon whose delta there may be room enough for a port, and whose only means of communication with its neighbors may be by way of the sea. Frequently the heads of neighboring fjords meet, forming islands, of which it is esti-

mated that there are some 150,000 off Norway, forming almost a continuous chain or "skerry guard" between which and the mainland is the quiet protected water of so much importance to fishermen and sailors. The largest island group—the Lofoten—separated from the mainland by the Vest Fjord, is one of the world's most famous codfishing regions.

Some of the more notable of the Norwegian fjords are Sogne, 136 miles long with a maximum depth of over 4,000 feet, and Hardanger, 119 miles long and over 2,100 feet in depth, while Stavanger, Nord, and Vest fjords are almost $\frac{1}{2}$ mile deep. Those at the extreme north as well as Oslo Fjord in the south are more baylike in form, *i e*, open and light rather than dark gloomy clefts in the mountain wall. Ofotenfjord at one point reaches within 6 miles of the Norway-Sweden boundary.

The Swedish coast is in marked contrast to that of Norway, being relatively smooth and unbroken while the wide river mouths provide good harbors.

CLIMATE

Tremendous Importance of the Sea.—In spite of its northerly location—in the latitude of Greenland and Labrador—Scandinavia is the home of two of the world's most progressive nations. The explanation of the contrast in these two regions on either side of the North Atlantic lies in their position relative to that ocean. The climate of Scandinavia, on the leeward side of the waters warmed by the North Atlantic Drift, is greatly modified, especially on the western slopes. As a consequence of this oceanic influence the coast, even at the far north, is ice free throughout the year and has the same January temperature average as central Bulgaria, 2,000 miles to the south. In fact on the coast the Norwegian winter is so open that in places grazing is possible throughout the year. The winter temperature in the vicinity of the Lofoten Islands is more than 40° F. higher than the average for that latitude and represents the maximum divergence from the normal of any place on earth.

Temperature.—Within Scandinavia the distribution of temperature depends more upon elevation and distance from the sea than upon latitude. Especially is this true of western Norway. One may go the entire length of the country from North Cape to Khristiansand, a distance of 1,000 miles through 14 degrees of latitude and experience no greater change in the average January temperature than may be found by going inland 25 miles from the west coast.

The long high plateau running through Scandinavia cuts off most of Sweden from this marked oceanic influence. As a result the harbors on the Baltic are frozen in winter; the lakes and rivers used for navigation and power are closed by ice for part of the year; the summers get hotter and the winters colder than in corresponding sections on the western side of the divide, accompanied naturally by a shorter growing season.

and by deeper snow in winter. Upon the plateau the winters are very severe and even in summer the evenings and nights are cool. The combination of adverse climate, scant soil, and steep slopes makes this section of little economic value. The largest glaciers of Europe are found on this plateau northwest of Oslo, one covering an area of 580 square miles.

Precipitation.—The precipitation is heaviest in western Norway, increasing with elevation until on some of the plateaus above the western coast it has been estimated that over 200 inches fall annually. The leeward side of the peninsula receives considerably less, with the northern part of Sweden and adjacent Norway getting but a scanty fall (20 inches or under). Because of the limited evaporation, there is no part of the peninsula rendered non-agricultural on account of lack of moisture. The low temperatures and light precipitation over much of central and northern Sweden, however, reduce the stream flow and affect their usefulness for floating timber and for the development of power.

Variation in Length of Day and Night.—The high latitude carries with it a commensurate variation in the length of day and night. This of course increases as one goes northward until at North Cape there is a continuous night of $2\frac{1}{2}$ months in midwinter and a correspondingly long day in midsummer. Trondheim shortest day is from 10 a.m. to 2 30 p.m., while Bergen and Oslo have $5\frac{1}{2}$ to 6 hours of light. Mathematically the actual total length of light and darkness will in the course of the year average about the same as farther south but the extreme periodic variations call for profound seasonal readjustments in life and work which greatly increase the difficulties. The inconvenience of long winter nights is in part alleviated by the long twilight and the white snow cover with consequent increased effectiveness of moonlight and of the aurora borealis.

The length of the summer days, too, compensates in part for the short season, so that hardy grains may be matured even in 70° latitude. Barley will actually ripen in 2 months in northern Sweden, while it requires 3 or $3\frac{1}{2}$ months in the southern part.

Sunshine Deficient.—A disagreeable feature of the Scandinavian climate is the prevalence of cloudy and foggy weather. Practically all of the peninsula has less than one-third of the total possible sunshine. Fortunately the growing season has a minimum of cloudiness, June in Sweden having sunshine 50 per cent of the possible total time, but only 25 per cent in December.

AGRICULTURE

Agriculture Seriously Handicapped.—In spite of the great difficulties of mountainous topography, cold climate, and scanty soil, about one-half of the population of Scandinavia are farmers, at least during the

farming season. Many, during the winter, supplement their income by work in the fishing fleet, the lumber camps or the iron mines. Of the total area of the peninsula, about 50 per cent is unproductive waste land, one-tenth in crops or pasture, and 40 per cent in forest

There is a belt of waste land on the high plateau running the entire length of the peninsula, a distance of about 1,160 miles, which in the north is a continuation of the tundra of Arctic Russia. Southwestward the elevation increases, thus counteracting the more favorable latitude. Much of this plateau is above the tree line, the latter varying from 1,600 feet in the north to 3,000 feet in the south; ice and snow cover large areas, desolate in aspect. The vegetation covering, mainly of mosses and

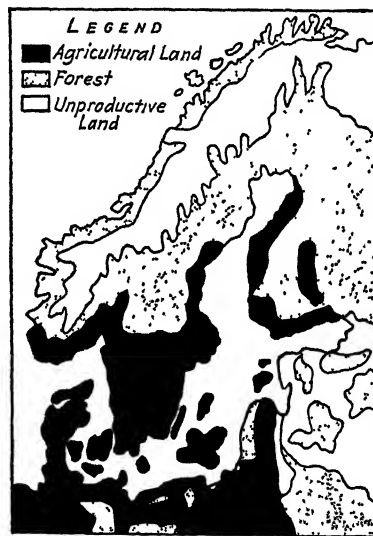


FIG. 225 —Land utilization in Scandinavia. (Courtesy Macmunn and Coster, *Europe—A Regional Geography*, Oxford Press)

lichens, in the north, provides sustenance for the reindeer of some scattered bands of Lapps. The chief value of this belt lies in its regulatory effect upon the flow of the streams (Fig. 225).

Mountains Limit Cultivable Land.—The principal difficulty in crop production in Scandinavia is the mountainous surface (Fig. 226). Little Denmark, a level plain only one-seventeenth as large, has over half as much arable land as the whole rock-bound peninsula of Scandinavia. Sweden, occupying the gentler slope, has proportionately four times as much land under the plow as has Norway. All told the total cultivated area of the latter country is only about 1,700,000 acres or about the same as that in the state of Maine. Norway with three-fourths and Sweden with one-third of her land absolutely unproductive, rank lowest

of all the countries of Europe, in this regard—lower even than Switzerland and on her Alpine perch

The fact that the larger part of the peninsula is made up of old resistant rock which weathers very slowly permits of the removal, over much of the area, of the disintegrated rock materials as fast as they are formed. Only on lower levels are deposits left intact and in a mountainous country like Scandinavia these will be in small patches or narrow strips, in valley bottoms, at fjord heads or in the limited plains of the south (Fig 37). Southern Sweden has the best soil, the most favorable climate and the most extensive plain of Scandinavia. Here are to be found



FIG 226 —Farming under difficulties in Norway View from Gudbrarrdodalew, Norway.
(Courtesy *World Agriculture*, June, 1923)

the most densely populated rural areas and the chief agricultural region. The "granary of Sweden"—Scania—averages about 50 per cent of the land under cultivation, almost as much as in the American spring wheat belt.

Emphasis upon Hay and Pasture.—The short summers restrict the variety of agricultural products within narrow limits. Both climate and topography favor hay and pasture rather than other crops. Over two-thirds of the arable land of Norway and about two-fifths of that of Sweden are used for this purpose (Fig. 227). Only Switzerland among European countries has a larger proportion of its productive land so employed. As in the Alps, transhumance or the seasonal migration of live stock to different altitudes for pasture is common agricultural

practice. In Norway grass is saved very carefully. That too inaccessible for the animals to reach is often cut by hand, sometimes being sent down to the valley by cables and cured by being ricked on a fence so that it will dry even in the damp climate (Fig. 228) Hay is the major

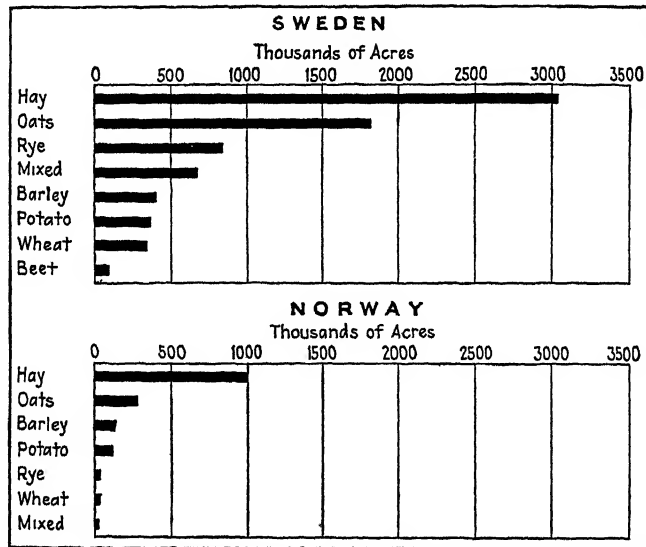


FIG. 227.—Relative importance of crops in countries of the Scandinavian Peninsula. (U. S. Department of Commerce.)

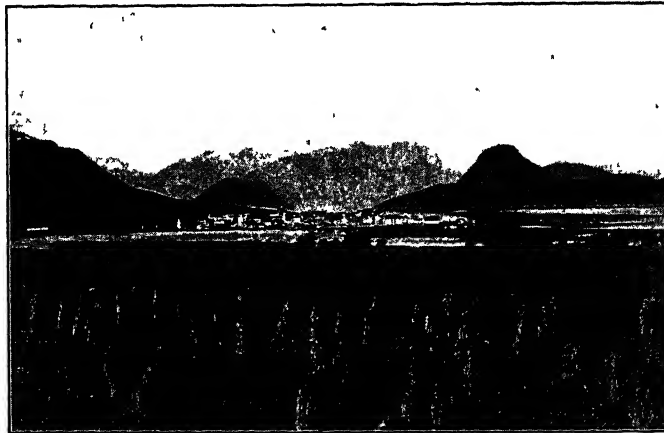


FIG. 228.—Drying hay near Nidaros, Norway. (Courtesy Norwegian Government Railways.)

agricultural crop of both Sweden and Norway, being more valuable in the latter than all the cereal and root crops together. In the north it is essentially the only crop; in the center and south it shares the productive acreage with oats, barley, and rye, which latter, in Norway as in Germany,

is the chief bread grain, and in the extreme south, with wheat and the root crops, especially potatoes and sugar beets. Crop yields per acre are intermediate between those of the North Sea countries and the output of the southern and eastern countries. Nevertheless the average production per cropped acre for Norway is 20 per cent and for Sweden 25 per cent higher than in the United States.

Live-stock Raising.—The importance of hay and forage crops naturally leads to emphasis upon the animal industries. The large proportion of rocky, forested, or snow-covered land, however, makes the animal density small. Finland, Norway, and Sweden are the lowest countries of Europe in animal units per square mile. Sheep, in rock-ribbed Norway, make up almost one-half of the animal population; in less mountainous Sweden, about one-fourth. Swine, on the other hand, constitute only 7 per cent of Norway's animals and 17 per cent of those of Sweden. In the latter they are valuable by-products of the dairy industry of the south. Practically all the cattle are for dairy purposes, their products providing the only considerable item of agricultural export from the peninsula. Southern Sweden, where small farms, cooperative dairies, and a considerable export of butter and condensed milk are characteristic, is an extension of the Danish dairy section. Goats, which would seem to be fitted for such conditions as prevail over large sections, have declined in number, their destructiveness of young forest growth discrediting them in countries which value their timber highly. It has been estimated that in 1915 two-thirds of the Swedish agricultural output was unsuited for human consumption, and that four-fifths of this was used for animal fodder. In other words, the great bulk of the agricultural output is grown for animal use.

Food Production Insufficient for Needs.—With the exception of a small dairy export, the farm products are, therefore, solely supply crops, neither Norway nor Sweden being self-sufficing in agricultural food-stuffs. The latter with its more favorable agricultural possibilities produces about three-fourths of its food requirements. Norway imports over one-half of her grain, one-third of her fats, and all of her sugar. In both countries there has been a marked industrial trend, but, while the proportion of the population engaged in agriculture has declined, the area cultivated has increased, as has also the total output of both grain and live stock. The possibility of extending the area of cultivable land is not particularly promising. While it is estimated that Norway may slightly increase the tilled acreage, it can only be done with government aid, and in some cases by subjecting the land to an unduly heavy capital charge.¹ The soils of Norway in general are hard to work, often glacial or avalanche deposits so full of stones or so steep as to make

¹ The cost of clearing, removing boulders, and draining often runs from \$140 to \$1,000 per acre

difficult not only the cultivation but the mere holding of the soil in place. In Westland some farms can be reached only by the aid of ladders laid up the sides of the mountains.

As a rule the farms are small and operated by owners (Fig. 228). Over one-half of those in Norway are mere gardens—less than three cultivated acres each¹. Most of these farms, however, possess also more or less forest, grassland, and pasture which contribute a considerable portion of the total income. The mountain pasture, or *saeter*, is usually located at an elevation of 600 to 1,800 feet, many being on the lower slopes of the plateau.

FORESTS

A Major Resource.—One-third of the Scandinavian Peninsula, stretching entirely across the great coniferous forest belt of northern Europe, is timbered, chiefly with pine and spruce; and wood and wood products play a major role in the national economy of both countries.

Distribution of Forests.—The distribution of forest cover over the peninsula is, however, very irregular. The high plateau is practically barren and over much of western Norway tree growth is lacking. Although precipitation there is heavy and winter temperatures mild, there is a considerable proportion of the surface upon which soil is absent, the slope too steep or the exposure to heavy winds too great to permit a good stand of timber (Fig. 229).

Forests of Norway.—Of the total woodland surface of Norway, about one-half of the merchantable stand is on the southeastern slope draining to the Skagerrak. The most important forest area of western Norway is in the region of Nidaros. In addition to an unfavorable environment there has, in the past, been little restriction upon cutting, so that the forested area has been reduced by about one-third and now covers only 21 per cent of the total surface. The ready accessibility of the original forests to the deep well-protected fjords open all of the year and the presence of many streams for floating and for power for the mills together with the attractive English market near by, have led to a serious depletion of Norway's timber.

As a national resource forests share second place with fish, and, since the population is small, per capita timber acreage and wood consumption are high, next in fact, to Finland and Sweden, among European countries. Not only is there a large domestic consumption for fuel and construction purposes, but exports of lumber have been a considerable item in the foreign trade. There has been in recent years a marked decline in the production of lumber and a corresponding increase in the manufacture

¹ Only 26 individual farms have over 250 acres of cultivated land each and 92.5 per cent have less than 25 acres of such land. In Norway 81 per cent of the farms are worked by owners.

of wood pulp and paper With this increase in the industrial use of the timber has come a more complete utilization of the forests and increased employment in a land of limited opportunities. As a national asset the forest resources are important, but Norway is not an important factor in the world timber supplies.

Sweden's Vast Forests.—Sweden ranks high among forested countries, Finland alone on the continent having a larger proportion of its area in timber Northern Sweden reaches into the Arctic tundra, the southern

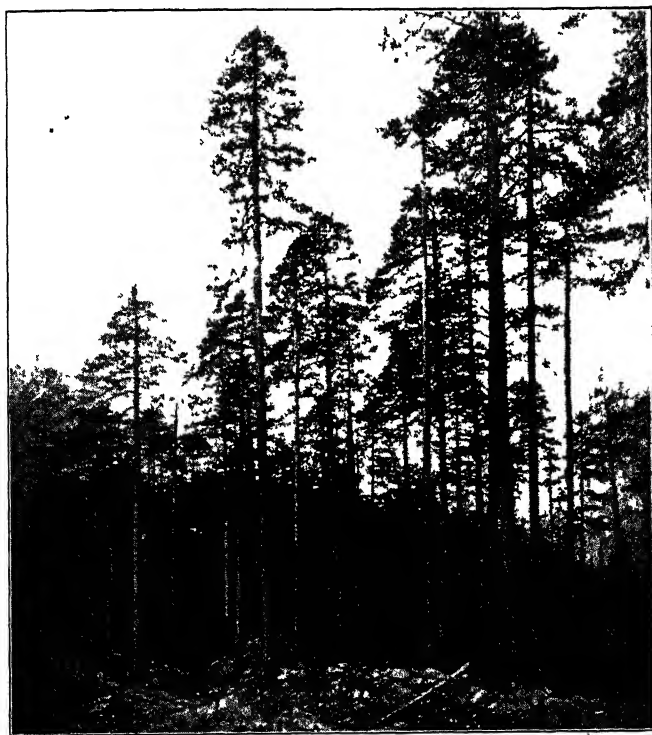


FIG 229 —Much of Norway's surface is better suited for forest than for crops. Note the splendid conifers on this rocky area (Courtesy Norwegian Government)

section is in the hardwood zone, but the great bulk of its forests are coniferous. Although the largest acreage of timber is in the north, the slower growth and the greater inaccessibility there make the central and southern sections the chief producing areas. In contrast to Norway, Sweden encounters the difficulty of the ice-closed rivers and harbors for several months of the year. On the other hand, there is a greater area well suited for timber, a larger number of streams of considerable volume less impeded by falls, and a heavier snow for land hauling. Practically all the standing timber is within 3 or 4 miles of a stream,

so that exploitation has been accomplished at little cost, and the utilization has been correspondingly efficient. Perhaps even more important than these natural advantages has been the attitude of the government and lumber companies, both cooperating to conserve the forests. There is practically no waste, cutting is strictly regulated, and reforestation widely practiced. As a result, although exploited for centuries, and

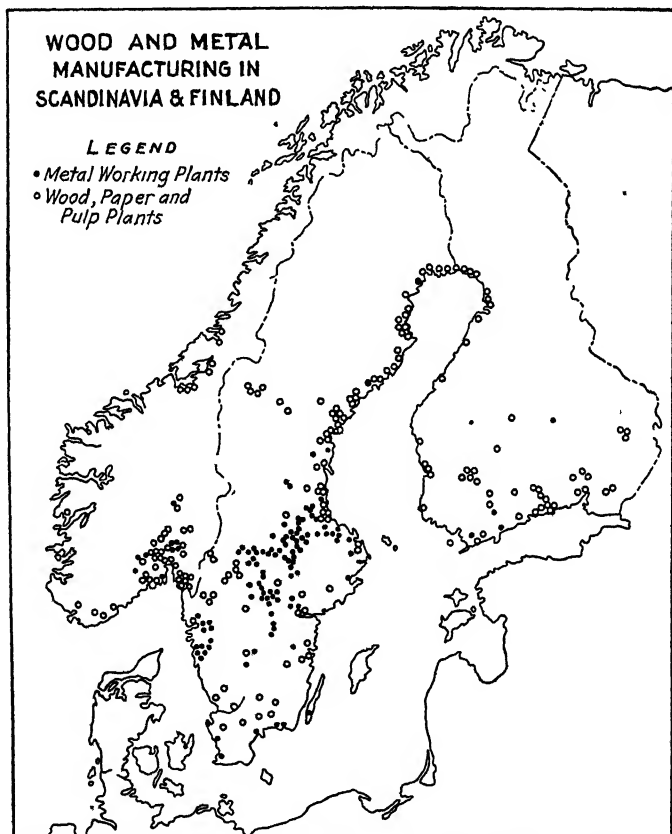


Fig. 230.—Wood and metal manufacturing in Scandinavia and Finland.

with a slightly larger cut than growth, it is probable that at present Swedish forests are actually increasing in area.

There is the same trend toward the production of pulp and paper which characterizes her neighbors, though Sweden, using one-half of her pulp for this purpose, is still behind Finland which converts as much as four-fifths before exporting. Lumber and pulp rank first and second, respectively, among Swedish exports. With favorable natural conditions and business-like management her forests are not only a national but an international factor in lumber, pulp, and paper production (Fig. 230).

WATER POWER

Wealth of Water Power Available for Manufacturing.—Although climatic and topographic factors have operated to seriously curtail agricultural production, they have, on the other hand, furnished Scandinavia with an extraordinary abundance of water power. The peninsula possesses almost one-third of the total potential and one-fourth of that developed on the whole continent. In view of the entire absence of petroleum and the scant coal resources, the enormous hydroelectric power available is of fundamental importance in shaping the economic

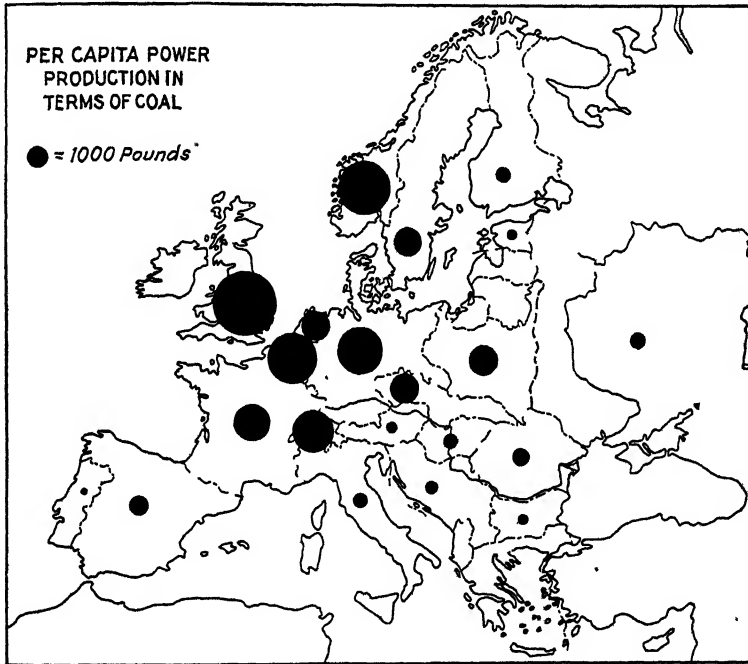


FIG 231 —The coal-producing countries dominate the power production, three countries alone accounting for 75 per cent of the total power output

development of the two countries. Any considerable growth of the population of either country must depend upon industrial development, which, in turn, hinges upon water-power exploitation (Fig. 231).

Norway Especially Favored for Water-power Development.—Conditions in Norway are, on the whole, more favorable for extensive hydroelectric development than they are in Sweden. Possessing the west-facing slope of the peninsula she receives considerably more rainfall, has steeper gradients for streams, possesses countless fjords which bring ocean transport into close proximity to the power sites, and is much freer from ice troubles. In fact, Norway probably has the most favorable combination

of natural conditions for the development of water power to be found anywhere in the world. In per capita development she has no equal, and among European countries ranks first in potential energy and third in exploitation. The chief handicap is the comparative scarcity of local markets and raw materials, wood being about the only raw material available. As a result of these naturally favorable factors Norwegian water power has been developed in large quantities at very little expense. Cities on the west coast in places may purchase power at the extremely low rate of \$4.80 to \$7 60 per horsepower year. (Compare with \$50, an ordinary rate in New York City) Several falls developed prior to 1915 cost only from \$25 to \$40 per horsepower of installed capacity, and, since distances are short, transmission charges are low. Water-power exploitation in Sweden, including the cost of falls and distributing system, is estimated to average about \$80 per installed horsepower and the capital invested in hydroelectric works in 1924 was estimated at over \$250,000,-000. Post-war installation is of course done at greater expense.

Conditions Affecting Power Development in Sweden.—Swedish rivers, on the other hand, have larger drainage basins but smaller precipitation. The gentler slope results in many falls of small head rather than a concentration of the drop at few points with high heads as in Norway. One of the most serious handicaps in much of Sweden is the freezing in winter, which reduces the flow and necessitates auxiliary steam power or temporary closing of the plant. Sweden possesses, however, in its mines, forests, and farms much more in the way of domestic raw materials available for manufacturing to utilize its available power.¹ Both countries possess the advantage of rock foundations for dam construction and lakes and glaciers in addition to forests as stream regulators. Of great significance is the availability of electric power to the rural population, Sweden leading the world in its agricultural utilization. Over 3,600,000 acres of farm land, or 30 per cent of the cultivated area, is electrified, the current distribution being usually handled through cooperative societies. The total agricultural use in Norway is, however, negligible, being only 7 per cent of that in Sweden.

Distribution of Water Power.—The distribution of developed water power in Scandinavia shows the major part to be in the south where population and industries provide a market (Fig. 232). In northern Norway the chief use of current is for lighting and heating in the fishing ports. In Sweden the great excess of power is in the northern interior in the thinly populated and undeveloped Norrland. Some of it is used there for the electric railway from Luleå to Narvik and for power in the sawmills (Fig. 73). To a limited extent it may be transmitted southward

¹ Its proximity to Denmark which has no water power results in an export of current via submarine cable to that country. Sweden also sends some to the near-by Oslo region.

where deficiency in the supply will first develop, but much of Norrland's power must necessarily wait long for exploitation

Other Power Resources.—Of supplementary power resources Scandinavia has few. Less than 750,000 tons of coal are produced in Scania and Spitzbergen. Much wood is used, especially for domestic heating. There is also considerable use of wood (charcoal) for smelting, while the waste from lumber is used for steam raising in the sawmills. All told, wood consumption is probably equivalent to several million tons

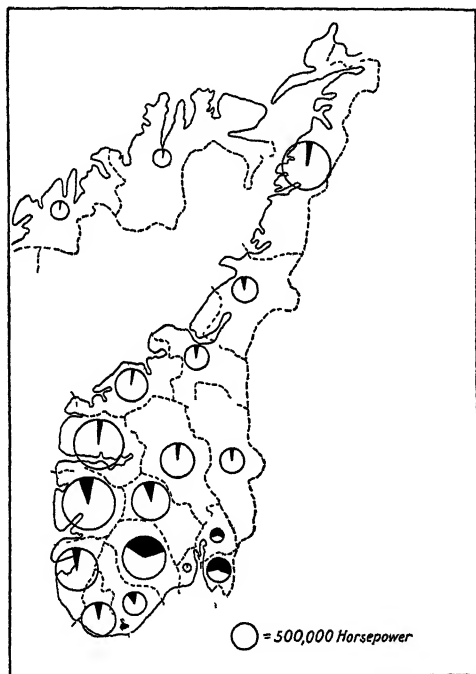


FIG. 232.—Potential and developed water power of Norway by provinces, 1922. (Data from *Utbygget Vannkraft I Norge*, Oslo, 1923.)

of coal whose actual consumption, considering the population and industrial development, is not only small but is decreasing, a tendency for which the increasing use of water power and of fuel oil is in large part responsible. The chief source of Swedish coal, formerly Great Britain, is now Poland.

INDUSTRY

The Industrial Trend.—The industrial use of water power in Norway began in 1845 with the manufacture of textiles. Within the next 30 years it had become the sole source of power for the making of pulp. Those establishments using water power rank next to agriculture and

forestry in the number of people employed. Local conditions have favored the development of manufactures demanding raw materials of small bulk but requiring much power for their fabrication. Norway was the first country to produce nitrogen compounds on a commercial scale, admirably supplemented by the rapid growth of the electrochemical and electrometallurgical industries giving her high rank in the manufacture of calcium nitrate, cyanamide, aluminum, cement, and wood products. The country ranks with Switzerland and France in aluminum output and is surpassed only by the United States and Germany.

In spite of the deficiency in coal, Sweden has turned more and more away from agriculture to industry and commerce. A half century ago industrial activities supported only 15 per cent of the population, today the proportion is 35 per cent and the value of the industrial products is fifty times that produced in the seventies. This rapid development has been paralleled by a corresponding growth in the foreign trade both in volume and in variety of items.

Swedish Resources Favor Industry.—In contrast to the narrow limitations upon agriculture which leave the country deficient in foodstuffs, Sweden has in her forests, iron ores, water power, and favorable commercial position the basis of a substantial industrial development. The Swedish people have responded to the stimulus of abundant raw materials by a marked display of inventiveness and skill especially in the manufacture of machinery. Swedish labor is well paid and efficient, the output per worker is considerably above the European average; and living standards are high.

Character of Products.—The products of her industries (known for their quality rather than for cheapness) are coming to be more and more of the highly finished type, only 14 per cent of the exports now being raw materials. This trend has been noted especially in connection with the industries associated with forests and mines. The former are no longer looked upon merely as a supplier of charcoal, and even the export of lumber has shown a strong tendency to barely hold its own or to decline. Swedish forest products have risen in value in 30 years from \$25,000,000 to \$170,000,000, while at the same time pulp, paper, and artificial silk manufacture have grown rapidly, accompanied by a corresponding change in the metal industries, second only to wood in export values.

Sweden is to a considerable extent a three-commodity country, but her rapid exploitation of the mines, forests, and water power has not been allowed to endanger the future supplies. The government and private capital have cooperated to insure the future as well as to protect present industry by proper conservation.

Distribution of Manufacturing.—The distribution of industrial plants shows a broad band across the southern part of the country between

Stockholm and Göteborg. Here, water power, iron ores suited for charcoal reduction, transportation, and the better agricultural resources are to be found. Many sawmills are scattered along the Baltic coast at the mouths of the rivers (Figs 233, 234) With the increasingly complete utilization of the available power and forests in south Sweden,

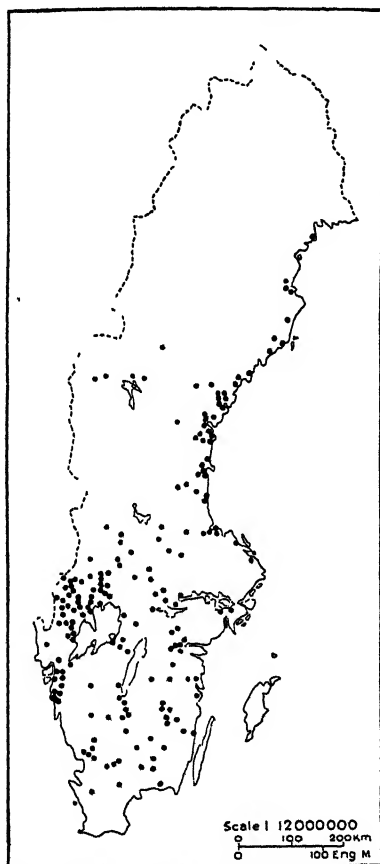


FIG. 233.—● Wood-pulp mills and paper mills.

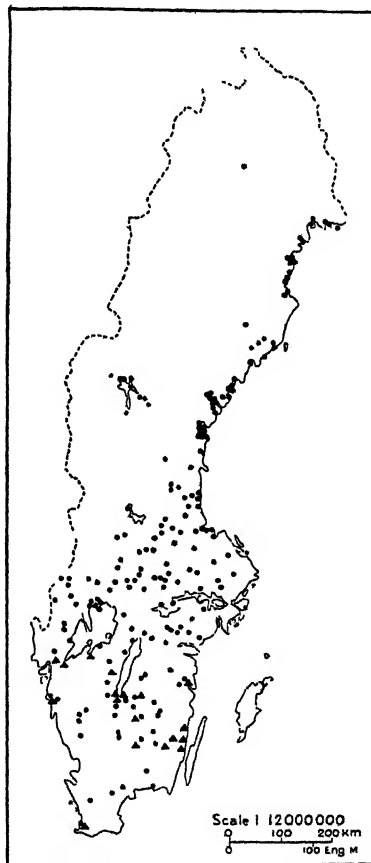


FIG. 234.—● Sawmills. ▲ Match factories

it will be necessary to depend more and more upon the vast waterfalls and timber of Norrland.

THE FISHING INDUSTRY

A Resource of Great Significance to Norway.—Scandinavia's meagerness of land resources is compensated for in part by the wealth to be found in the adjacent seas. The North Sea—most productive of the world's waters—and the coastal waters, especially those of Norway,

yield enormous supplies. With the single exception of Britain, the three Scandinavian countries rank first in Europe among those important in per capita fish consumption, 45 pounds a year—about twice that of the United States.

Norway, among all modern nations, is most dependent for sustenance upon fishing. Next to the soil, forests and the sea rank about equal as major resources. Fish not only furnish an important part of the domestic food supply but they and their by-products constitute about one-third of the value of all exports. Great Britain, among European countries, is the only one whose catch exceeds that of Norway. In 1926 the export of fish and their by-products was valued at \$38,000,000 or about \$14 per capita.

Conditions Favorable for Fishing.—The coast of Norway is unusually favored for fishing. Its innumerable fjords and islands give protection

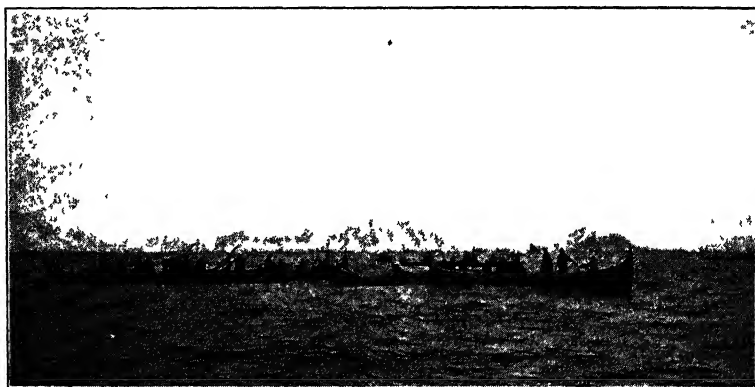


FIG 235.—Codfishing (Courtesy Norwegian Railways Travel Bureau.)

to the boats, and provide, as well, excellent spawning grounds. In addition the northerly position with the low temperatures, while poorly suited to agriculture, favors an excellent quality of fish and facilitates their preservation. The freedom from ice allows the fleets to follow the migrations of the fish at all seasons. Of course the open waters are frequently visited by storms and the havoc and destruction wrought among thousands of open boats is sometimes appalling. The modernization of the industry bringing larger vessels, steam and motor, in place of the small sailboats, together with the systematic use of patrols and wireless have, however, greatly reduced this hazard and loss.

The most famous fishing grounds off the west coast are those for cod south of Lofoten. Every winter some 11,000 to 12,000 boats visit these waters, and the population of the islands increases about 60 per cent during the height of the season. The cod ranks first in importance in Norwegian fisheries, the herring, caught farther south, being second

(Fig. 235). There where agriculture increases in importance the coast dweller may be both fisherman and farmer, depending upon the season. It was estimated in 1923 that of the 109,000 Norwegian fishermen, almost 25 per cent were farmers primarily, using the sea only as a minor source of income

Whale Fisheries.—Whaling has, in recent years, become an important branch of Norwegian fishing—in fact in 1927 the value of the catch was equal to that of all the other fisheries in the country (Fig. 236). Norway has almost a monopoly of this phase, its oil output accounting for over one-half that of the world's total. With the depletion of the supply in the Arctic the industry has scattered to the four corners of the earth, although the principal catches are now in the Antarctic. Modern whaling

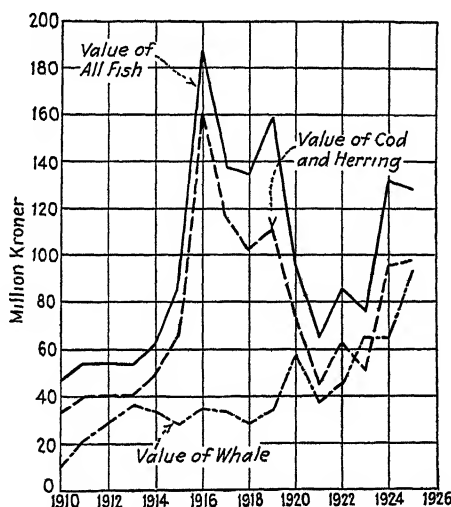


FIG. 236.—Norwegian fisheries classified as to types of fish. (Courtesy R. Linder)

operations are carried on by huge floating factory ships each attended by some three or more "chasers." The latter capture the animals and turn them over to the great "cookery" vessel which extracts and refines the oil. A single vessel may carry 40,000 barrels of oil, much of which is used by soap factories or made into edible products.

Baltic of Minor Importance.—The Baltic Sea is of far less importance for fishing. Indeed, the abundance of fish decreases with distance from the North Sea, the Gulf of Bothnia being of least importance. Some fish are taken along the coast of Sweden and the inland lakes and rivers contribute appreciably to the large quantity consumed. During the Middle Ages the herring fisheries off Scania were important, but are now of little consequence. The best Swedish fisheries are off the west coast in the Straits of Kattegat.

POPULATION

A Sparsely Settled Land.—Scandinavia contains two of the most sparsely populated countries of Europe, a natural consequence of comparative poverty of resources, a subarctic climate and a mountainous topography. Relief has been sought in emigration and industrial development which still constitute important outlets for surplus population of both countries, although the numbers seeking a livelihood elsewhere have varied with changes in economic conditions. As a whole the number of emigrants in proportion to the total population has been large but has decreased with the shift from agriculture to industry, a change characteristic of all the Scandinavian countries.

Population Distribution Very Irregular.—The distribution of the population over the peninsula, in view of the great variations in the environmental conditions, naturally is not uniform, in general the density decreasing northward and inland. Three-fourths of the population of Sweden live south of the sixtieth parallel, *i.e.*, south of the latitude of Uppsala, while an extension of this favorable plain section into Norway accounts for one-half of that country's population in the region about Oslo. Topography, climate, soil, and transportation facilities account for this distribution, and all these conditions are favorable only in very limited areas. A fringe of population along the coasts, groups of fishermen about the heads of some of the Norwegian fjords, timber workers in the mills at the mouths of the Swedish rivers, and an occasional band of nomadic Lapps are the widely scattered outposts of humanity in the north. No large cities are found in the interior. The industrial trend has tended to minimize the influence of soil and topography, but, since agriculture still concerns about one-half the population, these changes are as yet of small importance. Of the total, the proportion engaged in industry in Sweden is 45 per cent, in Norway 28 per cent.

Population Increase Depends upon Industrialization.—For the future, any considerable increase in numbers rests upon additional industrialization. For Norway, agricultural production has approximated its limit; in Sweden, while added transportation facilities will open up new lands in the interior and in the north, the total addition to the food supplies will of necessity be small. Water power represents the largest single asset, as yet only partly utilized, and its further exploitation rests in part upon the price of imported coal. Before the industrial revolution, founded upon this fuel, Norway and Sweden were much more important members of the European industrial family than today. The substitution of water power is, however, serving to restore some of their lost prestige.

The Lapps.—In northern Scandinavia and to a smaller extent in the central portion of the peninsula are some 25,000 to 30,000 Lapps (Fig.

237). Although numerically a minor element in the population they are an alien group, and the retention of their primitive habits, speech, and mode of life has given rise to a number of problems both domestic

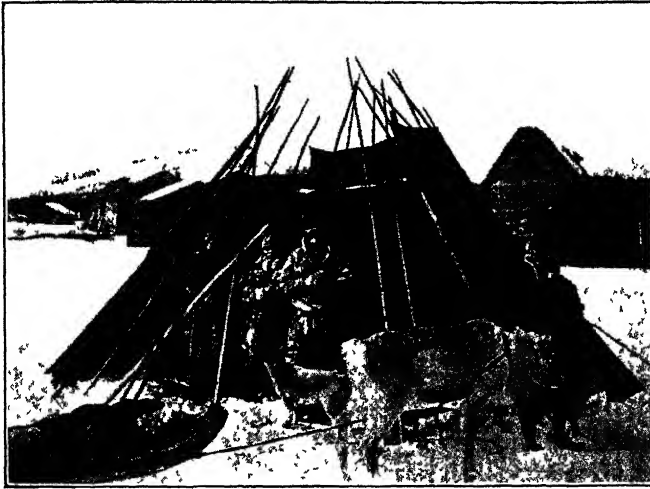


FIG 237.—Scene in Swedish Lapland showing Lapp dwelling and transportation methods
(*Courtesy Geographical Review published by the American Geographical Society of New York*)

and international. A considerable proportion of them are nomadic, depending for a livelihood almost entirely upon their herds of reindeer



FIG 238 —Reindeer are able to feed on lichens and moss buried under several feet of snow.
(*Courtesy K. B Wiklund, Uppsala*)

(Fig 238). In their wanderings for fresh pasture they have not only come into conflict with the sedentary farmers but have crossed the national boundaries and necessitated international arrangements for the

regulation of their movements. They are, on the other hand, to a certain extent an asset since they provide hides and meat and utilize what would otherwise be vast tracts of unproductive land.

MINERAL RESOURCES

Mineral Industries Chiefly Based upon Iron Ores.—Though one of its oldest industries, mining is not of primary importance in Scandinavia. Norway is especially deficient¹ in minerals and the only one of consequence in Sweden is iron ore. Unfortunately the coal is limited in amount and poor in grade thus placing a serious handicap upon mining and smelting. Less than 10 per cent of Sweden's coal needs are met by the domestic output which comes from Scania, and the limited supply of good coal there makes the exploitation practicable only where coal and excellent clay occur in conjunction, so that both can share the cost of mining.

Large Iron-ore Resources in Sweden.—Sweden possesses about 12 per cent of the iron-ore reserve of Europe but more significant still is the fact that she possesses 90 per cent of the *very high grade* ores of the continent, Russia claiming the remainder. This circumstance is especially fortunate in view of the absence of coal and the necessity of exporting the ore whose quality enables it to stand a high transportation charge.

The Ore Field of Central Sweden—The iron-ore deposits occur in two fields rather widely separated. In central Sweden are found excellent iron ores, low in phosphorus and sulfur, abundant forests for charcoal; and a population which for many generations has been skilled in iron and steel making. As a result Sweden became, during the eighteenth century, the world's leading iron producer and their product had a reputation for excellence unmatched anywhere. Upon it Sheffield's high-grade cutlery was based. But with the invention of coke as a substitute for charcoal and improvements by which a good quality of iron and steel could be produced from low-grade ore, steel production grew rapidly in the countries possessing coal. Furthermore, the price of Swedish wood for charcoal continued to rise, especially since the pulp and paper industry has developed to such large proportions, so that Sweden has become a relatively small steel producer. She still keeps her reputation for high grades, however, and retains certain markets needing special qualities. The use of the electric furnace, based upon energy from her abundant water power, is being tried out, a method which reduces the charcoal consumption about one-half. Electric smelting is used in the production of one-fifth of the total Swedish pig iron output, the rest being by charcoal alone. The general trend of the industry

¹ Mining and quarrying in Norway employ about 1.5 per cent of the working population (1920) and the value of the mineral output (1926) is about \$5,000,000. The principal items are pyrites and iron ore.

in recent years has been toward the manufacture and export of the finished steel products rather than pig iron. Exports of the latter from 1913 to 1925 have been reduced by three-fourths, while that of machinery and apparatus has multiplied about three times in the same period. The high per capita consumption of steel and the fact that metal products now rank first in value among Swedish manufactures are evidences of this trend

The Lapland Deposits — Though known in the seventeenth century, the Lapland ore deposits awaited the completion of the Luleå-Narvik

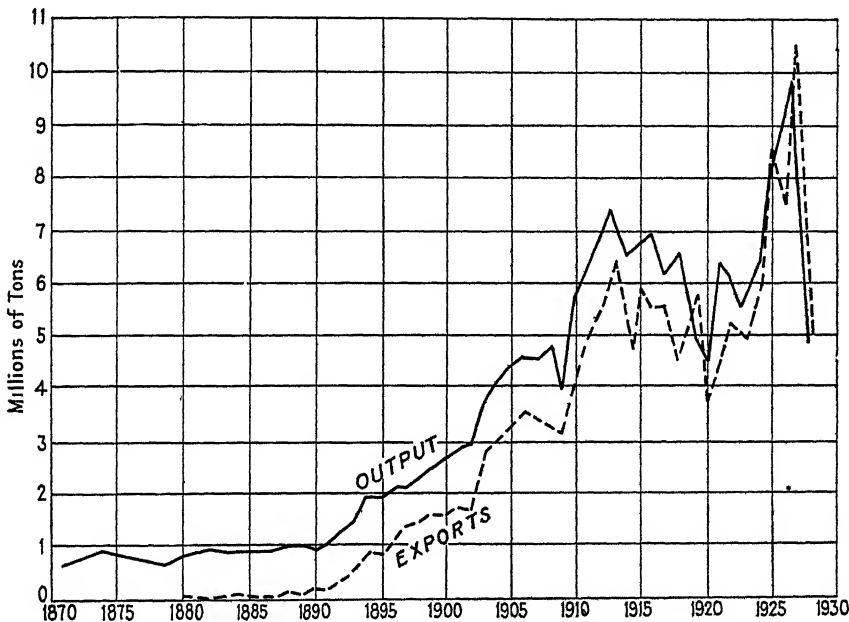


FIG. 239 — The export of Swedish iron ore is closely related to that of output.

electric railway in 1903 before extensive exploitation could be undertaken. In a bleak barren country, without coal and far removed from the iron-steel plants of central Sweden, the Lapland ores are almost wholly for export. The deposits rank as one of the world's largest reserves of high-grade ore, being about four times the extent of those of central Sweden. They are easily mined, much of them by open pit work, averaging about 62 per cent metal, with the major part rather high in phosphorus. Luleå, the nearest Baltic port, is closed by ice for 6 months, but Narvik on the west coast of Norway is ice free and accounts for the bulk of the shipments. About two-thirds of the annual export of 9,000,000 tons goes normally to German furnaces via Rotterdam, a journey comparable with that from Duluth to Pittsburgh, British plants and methods being

mostly adapted to low phosphorus ores imported chiefly from Spain and north Africa. The export from Lapland is strictly regulated by law and the government intends that the Swedish steel industry as well as the nation at large shall benefit from this valuable but limited resource (Fig. 239).

TRANSPORTATION AND TRADE

Interior Transportation Difficult.—Over much of the peninsula the construction and maintenance of roads and railroads is extremely difficult. Especially is this true of Norway where they must be hewn from mountain sides, carried through tunnels, or laboriously run over

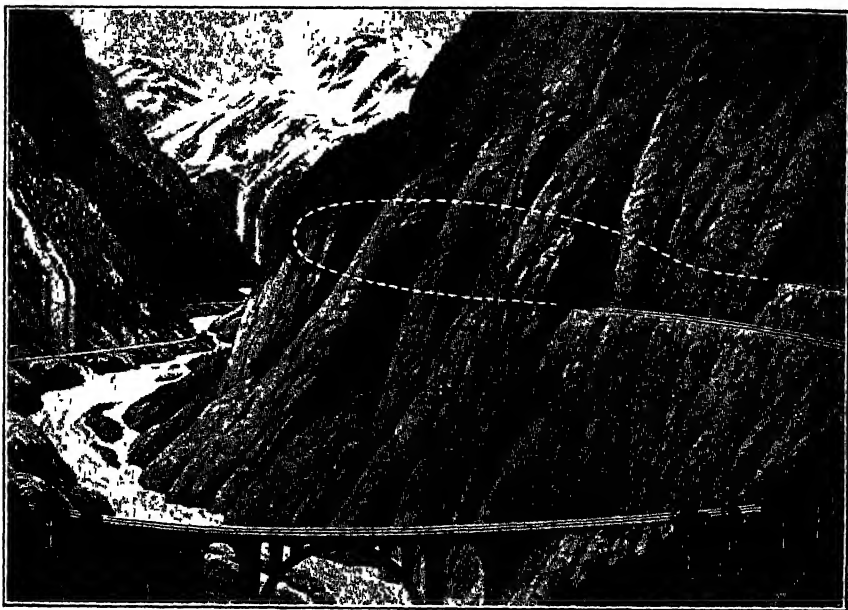


FIG. 240 —The remarkable triple tier track and the "turnabout" tunnel (nearly a mile long) at Verma on the Romsdale Railway east of Nidoros. (Courtesy Norwegian Government Railways)

the mountains by zigzag windings (Fig. 240). In addition to topographic obstacles, winter snow and ice make the maintenance of roads, railroads, and electric transmission lines expensive.

The high plateau forming the backbone of the peninsula with its precipitous slopes to the fjord heads on the west coast constitutes a commercial barrier of the first order. Only five railroads cross it, and these were built only with the greatest difficulty. Bergen, the second city of Norway, has but a single railroad connecting it with the interior—a line to Oslo. This road cost over \$11,000,000 dollars, and, although less than 500 miles in length, it has 178 tunnels and climbs

to a height of 4,264 feet (Fig. 241). No automobile or even wagon road supplements it. Only in southern Sweden, where one finds also the only inland water route, is there adequate interior transport.

The Gota Canal, built a century ago, joins Göteborg with Stockholm by means of one of the world's most picturesque though little used waterways. Of the 347 miles, over 200 are natural waterways, including lakes Vattern and Vanern, the Gota River and the Baltic Sea. Seventy locks with a total lift of 300 feet are used, the minimum depth being 9 feet. The

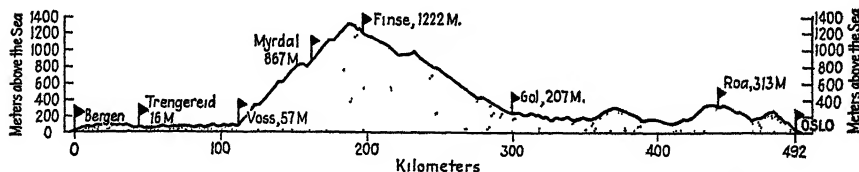


FIG. 241 —Profile of the Oslo-Bergen Railway showing altitudes of stations. Permanent snow is found at the altitude of Myrdal, and at Finse the railway passes between two glaciers.

water power available along this route has attracted many industrial plants to the vicinity.

Though large areas are untouched by railways or highways, the mileage of railroad in proportion to the population is large, in Sweden, the largest in Europe. The wide use of telephone, telegraph, and electric light has been a great boon to rural Scandinavia in her isolated mountain valleys with her long dark winter evenings.

Transportation Largely Dependent upon the Sea.—The difficulties of interior transport have forced Scandinavia to trade via the sea. This is true for both domestic and foreign commerce, particularly in Norway. The protected coastal waters, ice free, the abundant food supplies furnished by the sea, with the meagerness of agricultural resources have made the Norwegians a nation of sailors. Shipping there gives employment to one-fifth of the adult male population, and the country has long held first rank in per capita tonnage of merchant marine. It is said that Norway could put her whole population aboard her own fleet, an interesting contrast to the United States where all of the people could be put into their automobiles. It should be noted also that the natural limitations on the variety of products in Scandinavia with the exportable surplus confined to a very few staples makes dependence upon foreign trade a necessity. The great merchant fleet of Norway is of course not needed entirely for her own commerce, but serves as a carrier for other countries. Norway's losses of shipping in the war were enormous—almost one-half of her total fleet—but by 1927 she had a larger and a much more modern one than in 1913. The earnings of the merchant marine with that of the whale fisheries and tourist traffic are important

factors in correcting the unfavorable trade balance of \$75,000,000 to \$80,000,000.

Character of the Foreign Trade.—The chief exports of Norway (1925) are fish (about 30 per cent) and forest products (about 39 per cent), while the output of her manufactories, dependent upon water power, account for 16 per cent. Pulp and paper figure largely in export tonnage. The United Kingdom, Germany, and United States receive more than one-half of the exports. Oslo, the capital and only city of

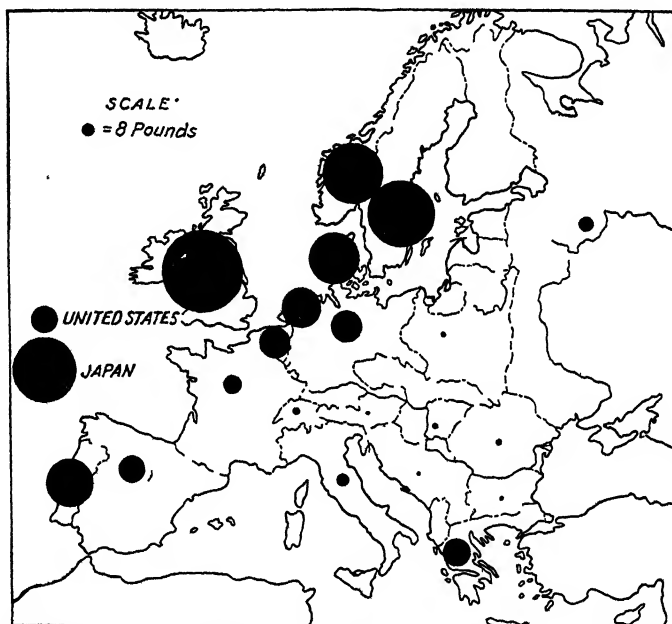


Fig. 242.—European fish consumption per capita. Note the contrast of the North Sea and Mediterranean countries (Courtesy H. B. Smith)

over 100,000, is the chief port; Bergen, the second city, is principally concerned with the fish trade.

DENMARK

Comparison with Finland.—In size Denmark ranks among the half dozen smallest countries of Europe, but its population density is high, especially for an agricultural country. Finland, at the opposite end of the Baltic, has only a few more inhabitants but is eight times as large as Denmark, a fact of great significance in comparing the relative value of their natural endowments. Denmark in its peninsular form and more especially in its more southerly position has marked advantages, both commercial and climatic over its northern neighbor. Furthermore,

while the surface features of both are the result of the activity of the same ice sheet, Denmark was fortunate in being chiefly a region of deposition, while Finland was one of erosion. As a consequence, the former, in spite of its limited area, has one-fourth more arable land.

The Kingdom and Its Possessions.—Denmark proper comprises the peninsula of Jutland, which contains 70 per cent of the whole surface, and about 325 islands, only 100 of which are inhabited. Of the outlying possessions, Greenland with an area, exclusive of that covered by glaciers, approximately twice that of Denmark, has a population of about 15,000. Its chief value lies in the fisheries off the coast. The Faroe Islands, an isolated volcanic group about midway between the Shetlands and Iceland, are regarded as a part of Denmark. The majority of the 23,000 inhabitants subsist chiefly by sheep raising and fishing. Iceland, formerly a Danish possession, is essentially independent, though acknowledging the same king.

Physical Features.—Physically Denmark is but a northward extension of the great European plain, with the same dune strewn west coast extremely irregular on the east and with the same low moranic hills, bog, swamp, clays, and sands which may be found anywhere bordering the southern shores of the North and Baltic seas. Its peninsular form, and its position bridging Scandinavia and the mainland as well as dividing the waters of the Baltic from the North Sea have furnished the physical basis for individuality—an independent political state rather than merely one of the numerous blocks which were joined to form the German realm. Again, the extended coast line and relatively level topography greatly facilitate transportation—an important factor in view of the semipermanent nature of the chief exports, and an advantage also reflected in the development of a merchant marine and in the exploitation of the fisheries.

Denmark commands the three natural routes between the North and Baltic seas, the main passage, the Sound, being only three miles wide at the narrowest place. The Great Belt and Little Belt have dangerous currents, many small islands, and shoals.

Climate.—The climate is marine, characteristic of northwestern Europe, the rainfall averaging about 25 inches with much damp cloudy weather and raw chilly winds. København on the average receives only about one-fourth of the sunshine possible, conditions which, in general, are much better suited to pasture than to cereals. Of these, oats, rye, and barley are better favored than wheat.

Population.—The population of Denmark (3,475,000) is still mainly rural (57 per cent), although with the increased use of machinery and the growth of industrialism the urban element is showing a relative increase. Emigration varies with the economic conditions but in recent years has averaged about 6,000 annually.

Köbenhavn ("merchant's haven") the only city of consequence, and possessing one-fifth of the total Danish population, occupies one of the most strategic positions in Europe. Built upon a narrow strait between Zealand and Amager Island, it has an excellent harbor. Its importance as an entrépot was greatly increased by the establishment there of a free port in 1894, but the construction of the Kiel Canal¹ was a great blow to the city.

Resources Limited.—In view of the limited variety of resources and the proximity to the world's most famous fishing grounds, it is surprising to note the relatively small importance of this industry in Denmark. In 1928 the total catch was estimated at about 210,000,000 pounds with a value of almost \$10,000,000. This is a per capita value of only about \$3 as compared with over four times as much from fish and whale in Norway. Formerly the Baltic was frequented by great schools of herring and the protection of the fishermen in these waters from the pirates was used as an excuse for the "Sound Dues" collected by Denmark on all shipping through it, but this was discontinued in 1857.

Although at one time covered with forests the country now has but 1 acre in 12 in timber or a total of about 700 square miles, and ranks with such forest-poor countries as Britain, Netherlands, and Greece. The forested area has, however, increased $3\frac{1}{2}$ fold in the past 60 years.

The country's only mineral resources of consequence are the raw materials for brick, cement, pottery, and porcelain works. The materials for the last are furnished by the island of Bornholm which, geologically unlike the others, is an outlier of the Scandinavian block and possesses excellent clay.

Though native fuel or power resources are practically lacking, it must be noted that Newcastle coal is ordinarily about as cheap in København as in London, while a small amount of electricity from Sweden's surplus hydroelectric energy is transferred by submarine cable across the Sound. Under present conditions, however, this lack of resources prevents Denmark's becoming an industrial nation in the modern sense, and such manufacturing as is carried on is chiefly concerned with the preparation of her agricultural products destined for export, or with the satisfaction of the home market.

AGRICULTURE

Agriculture the Dominant Occupation.—To an extraordinary degree Denmark is a country of a single resource—the soil—and much of this was, originally, not naturally fertile. Eastern Jutland and the islands possess moderately productive land, but the rest contains large areas of light, sandy, infertile soils.

¹ Sixty-one miles in length it saves 237 miles, 1 day for a steamer.

Up to 1850 grain growing, without fertilization or crop rotation, characterized Danish agriculture. The production of animals was of minor importance, although badly needed by a soil naturally low in fertility. Under these conditions the land gradually became impoverished, yields declined, and, together with low prices for grain, a serious depression developed. The crisis became acute when, in the seventies, here came a flood of cheap grain from the virgin lands of the New World.

Reasons for Change from Grain to Dairying.—With the recognition of the permanence of this condition, and of the futility of attempting to compete with the new countries in grain growing there began in Den-

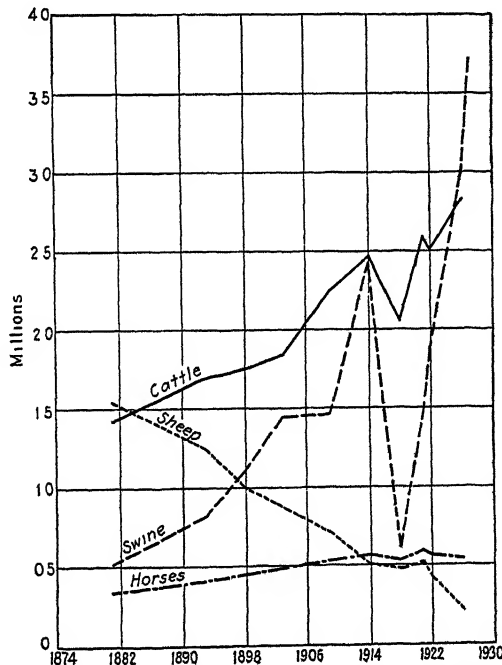


FIG. 243.—Live-stock trends in Denmark. Note the rapid increase of swine and cattle (mainly dairy) as compared with sheep and horses.

mark a great agricultural transformation, furthered by the considerations: that (1) the prices of animal products had not fallen as had those of the grains; (2) climatic and soil conditions were actually more favorable for animal than for cereal production; (3) large industrial populations were near by to provide markets which could be reached by perishable animal products; and (4) the animal manures would restore the fertility of their worn-out soils. Several farseeing leaders recognized in this phase the future of Danish agriculture. The revolution was effected gradually, animal husbandry replacing grain growing and small holdings replacing large estates (Fig. 243).

The shift from a comparatively simple type of land utilization to a highly specialized complex type, from grain growing to the production not only of animals but of highly finished animal products, has been intimately associated with that of several other movements fostered by the government, by individual scientific leaders, and by the farmers acting through their cooperative societies. The establishment of a far-reaching system of agricultural education in which a knowledge of scientific agriculture could be made a part of the equipment of every farmer was fundamental to the success of the new regime.

The World's Leader in Agricultural Cooperation.—One of the most distinctive features of Danish agricultural organization is the large number of small farms and their intensive cultivation by their owners. Of the total number of holdings (about 250,000) 71 per cent are under 40 acres, over one-half have less than $13\frac{1}{2}$ acres, and over one-fourth (27 per cent) less than $1\frac{1}{2}$ acres. The most important contribution of Denmark to the agrarian world is the successful application upon a large scale of the principle of agricultural cooperation. Nowhere else have such efforts been so widely applied or so uniformly successful. There are approximately 5,000 (1920) cooperative societies enrolling almost 90 per cent of the farmers of the nation. Their activities cover a wide range chiefly in the production, marketing, and purchasing fields.

Cooperation has in turn made small land holdings practicable, has produced standardized high-quality products, distributed them efficiently through the most direct marketing channels at small cost, and has been able to make continual readjustments in farm production to better meet the consumers' demands. It has thus made available to the small farmer the advantages of large-scale production, distribution, and purchasing. It is significant that the majority of those farmers not members of the cooperative societies possess large farms.

In all these activities the government has taken an energetic part. The success of the movement has been primarily dependent upon the unique system of education which has made a knowledge of scientific agriculture and a high regard for rural life the possession of practically every inhabitant. Loan funds have been instituted for facilitating the purchase of land by the workers; information disseminated on stock breeding; laws respecting sanitation, standards and grades established and rigidly enforced. The aim has been to insure the maximum use of the land and to foster every financial, educational, and scientific organization or institution designed to increase the national agricultural efficiency. The cooperation of government with private effort has been conspicuously intelligent and effective.

Reclamation and Fertilization Practiced.—Reclamation of waste land and the increased productiveness of that already under cultivation have gone hand in hand with the change in agricultural methods. Thus

1,500,000 acres of waste land have been converted either into forests or farms—and Denmark now has the largest proportion of its area classed as arable of any country of Europe. Meantime permanent pasture has declined in the past half century from 41.4 per cent of the area to 17 per cent. The increased use of animal manures, together with imported commercial fertilizers, has raised the productiveness of the soil until yields are among the highest in the world.

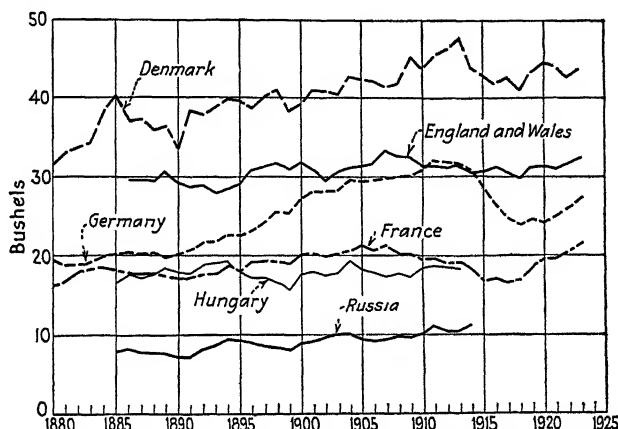


FIG. 244—Wheat yield per acre, trends in various European countries, 1880 to 1923.
(U S Department of Agriculture)

Agricultural Methods.—The small size and the comparative uniformity of climatic and topographic conditions have made agricultural practices fairly uniform. On practically all farms the aim is to grow mainly fodder crops, to keep dairy cows, raise bacon hogs to utilize the skim milk and whey, and to raise chickens. With the rapid growth of animal population much of their food must necessarily be procured elsewhere. In 1928 over 1,500,000 tons of oil cake, bran, maize, and other feeds were brought in. Up to the World War about 60 per cent of the grain consumption was of domestic origin. The effect of the stoppage of that movement during the war was to necessitate the slaughter of much of the live stock.

The animal population has grown until Denmark in proportion both to area and number of inhabitants ranks among the three or four leading countries of Europe in the number of cattle and swine. With this growth in numbers there has been a corresponding improvement in the animals and their products. In the half century from 1864 to 1914 the yield of butter fat per cow trebled, only three countries of Europe having in the latter year a larger average yield of milk per cow. Tuberculosis has been entirely eliminated. The observance of the utmost care and cleanliness together with the most modern methods and rigid inspec-

tion of export products have made Danish butter, bacon, and eggs the world's standard for high quality

Foreign Trade.—Limited area and lack of variety in the resources naturally favor a large per capita foreign trade (\$259), more than three times that of the United States. In addition to manufactures, huge quantities of animal feed—80 per cent of the total used—must be imported. Manufactured foodstuffs make up about 80 per cent of the exports. High-grade butter is Denmark's specialty, and she is the world's largest shipper of that commodity. It is her main export "money crop," over 300,000,000 pounds being shipped in a single year. Such has been the phenomenal development of the variable product

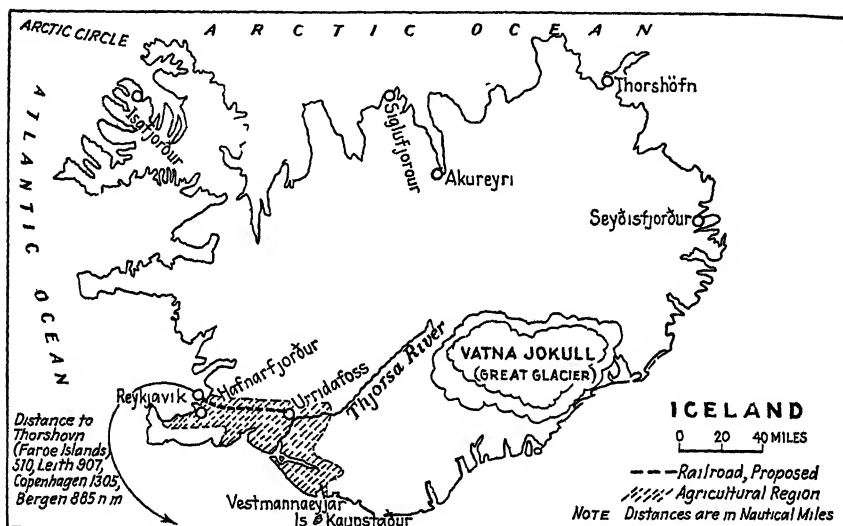


FIG 245—Iceland is a volcanic island and volcanic eruptions are relatively frequent. Hot springs are abundant and earthquakes are relatively frequent. The mountainous surface leaves only about one-fifth of its 38,000 square miles cultivable. (U S Department of Commerce)

of the primitive kitchen hand churn into the standardized high quality product of more than 1,000 modern sanitary factories which is hurried across the North Sea to the English breakfast table. Similarly, bacon prepared to suit the Englishman's taste is today turned out from 55 cooperative bacon factories, Denmark, in 1926, accounting for 30 per cent of the world's total exports of bacon. A recent attempt to increase the variety of commodities for export is seen in the larger amounts of cheese and condensed milk. As a matter of thrift, the Dane will sell his high-priced butter and in turn import cheaper fats and oils for his own table, and the country is an important manufacturer of margarine. Practically the whole output is for domestic use, and their per capita consumption of $45\frac{1}{2}$ pounds is probably the highest of any people.

Iceland.—Though on the margin of the north frigid zone, Iceland, like Norway, escapes some of the severest penalties of its northerly position, thanks to the moderating influence of the warm waters of the North Atlantic. Thus, Reykjavik is an ice-free port, although so far north as to be off the main commercial routes.

The island is about one-fifth larger than Ireland yet has a population only one-fourth that of the city of Dublin, in fact the density, 2.5 per square mile, mostly on the southwest margin of the island, is by far the smallest of any European land. The explanation for its scant population lies in the fact that three-fourths of the area is waste land, lava, or ice covered (Fig. 245). In spite of these handicaps, Iceland has a civilization of a high type. The gradual emancipation from restrictive trade regulations has resulted, since 1900, in a greater quickening of the industrial and commercial life than in the previous five centuries.

Of the total population about two-fifths are farmers, and, since the island lies north of the limit of cereal production, their interests, like those of Scandinavia, are chiefly in producing hay, forage, and animals, of which sheep are the most numerous, although dairying is of growing importance.

Another one-fifth of the people are fishermen and their catch supplies the chief export. Most of the fish, salted and dried, go to Spain, the dairy products, to England, the latter furnishing, in turn, the chief imports of clothing and machinery.

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B. EASTERN EUROPE

CHAPTER XVIII

THE BALTIC STATES AND FINLAND

FINLAND

Political Relations.—Finland for some six centuries was a part of Sweden and owes much of its progress and culture to the influence of the Swedish people, who still constitute a small but important group in the country. In 1809 Russia acquired control and for almost a century Finland was a semi-autonomous part of that empire. About the close of the nineteenth century strong efforts to Russianize the territory aroused much national spirit, and the Russian revolution of 1917 provided an opportune occasion for a declaration of independence. After a period of internal strife, in the settling of which German aid played a part, the Bolshevik element was defeated and the republic established.

Politically and culturally Finland, like the countries immediately to the south, marks the transition between east and west Europe, a buffer between Slav and Teuton. It should be noted, however, that while racially it is composed of neither of these groups, the country itself belongs to the west; is the frontier of the *western* rather than of the *eastern* social and political systems. The change occurs at the Russian boundary and is most striking. Though for centuries a battle ground between Russia and Sweden, it has been the latter, not the former, which has dominated social, intellectual, and political affairs, and in spite of harsh climatic and topographic conditions, civilization and culture compare favorably with those of Western Europe.

Latitude and Its Consequences.—The country occupies the most northerly position of any of the nations. The Arctic Circle crosses not far from the center and all of the country lies north of the sixtieth parallel, *i.e.*, in the latitude of peninsular Alaska and of Greenland.

As a consequence of its position, Finland's climate is intermediate in type, being neither strictly continental nor marine. The Scandinavian Highland minimizes the influence of the North Atlantic and its warm currents, while marked extremes of temperature are characteristic of the great Russian plain on the southeast. Finland is low, however, and the prevailing winds are from off the Baltic, so that the average temperature is about 10° F. higher than the normal for that latitude. Even so, the winters are very severe, the summers short and hot, and

sudden temperature changes with accompanying frosts not infrequently destroy crops.

During the winter the ports on the southwest coast can be kept open by the aid of ice breakers. Because of the influence of a branch of the North Atlantic Drift, Finland's short strip of Arctic coast with the port of Pechenga is ice free, yet this "back door" is commercially an uninhabited waste. The average annual precipitation of 21 inches, about one-third of which is in the form of snow, is lighter than for most countries of northwestern Europe. The freezing of the inland waters and the snow cover are important factors in winter transportation, particularly for logging operations.

SURFACE FEATURES

A Low Glaciated Plateau.—Finland is a low plateau, the stump of a former mountain system long since eroded away. Its present surface features are largely the consequence of most vigorous glaciation. Like its counterpart, the Laurentian Highland of North America, it has been stripped by the ice of most of its original soil, leaving a moraine cover of boulders, gravel, and sand. The country has been appropriately named *Finland* (fen land) since lakes, marshes, and bogs comprise about one-third of the entire area. Lakes, to the number of 35,500, occupy a larger proportion (11.2 per cent) of the total area than in any other country. Most of them are small, and the great majority are located in the southern half where they cover about one-fourth of the surface.

NATIONAL RESOURCES AND THEIR DEVELOPMENT

Large Water-power Resources.—Over most of its rocky, ice-scoured, lake-strewn surface, forests and water power constitute the chief resources. Although the country is neither high nor subject to heavy precipitation, yet the small amount lost by evaporation or absorption leaves a relatively large run-off. The many lakes and marshes serve as reservoirs, although the ice renders them useless for about 150 days of the year. Of the total potential power available, estimated at 1,800,000 horsepower, about 343,000 were to have been developed by the end of 1930. The absence of coal, however, and the demands of industry are stimulating systematic exploitation (Fig. 246). The completion of the government projects under construction planned for 1930 will electrify all south Finland, a section with 50 per cent of the population, half the cultivated land, and 70 per cent of the industries of the country. The pulp and paper industries use almost two-thirds of the electric power provided.

A Land of Extensive Forests.—The land lies in the great north European conifer forest belt, and timber, of which it is the largest European producer and exporter, constitutes a most important factor in

national economy (Fig. 247). The proportion of land in forest as well as the per capita timbered area is the highest in Europe, and, with Russia, Finland possesses the only extensive virgin forests on that continent (Figs 248, 249). The wooded portion—over three-fifths of the whole—is



FIG 246 —The famous rapids of Imatra, Finland. One of the many potential power sites in this northern land. (*Courtesy Finnish Government.*)

larger than New England or the state of Illinois, and timber, pulp, and paper constitute a large part of the total exports. About 20,000 logs and 2,500,000,000 board feet of lumber are cut and over 300,000 tons of pulp and almost 500,000,000 cubic feet of wood are exported

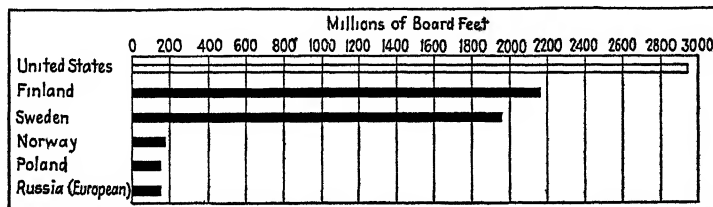


FIG. 247.—Exports of lumber, 1928, from the leading exporting nations.

annually. Woodworking industries employ almost one-half the workers and timber products account for about 85 per cent of the value of all exports. About 40 per cent of the forests, chiefly in the north and east, belong to the State, and, since the establishment of independence, conservation measures have been adopted to preserve this valuable resource.

Agricultural Development Limited.—Next to Norway, Finland is probably the poorest country of Europe in agricultural resources, but in spite of an adverse climate and a scanty and infertile soil, it is the chief dependence of the country's economic life,¹ two-thirds of the population being engaged either in farming or forestry. The most favorable conditions, both as to climate and soils, exist in the southwest (Fig 250). Cultivable land is in general found only along the coast, river valleys, or lake shores. The initial investment for clearing the land of timber and

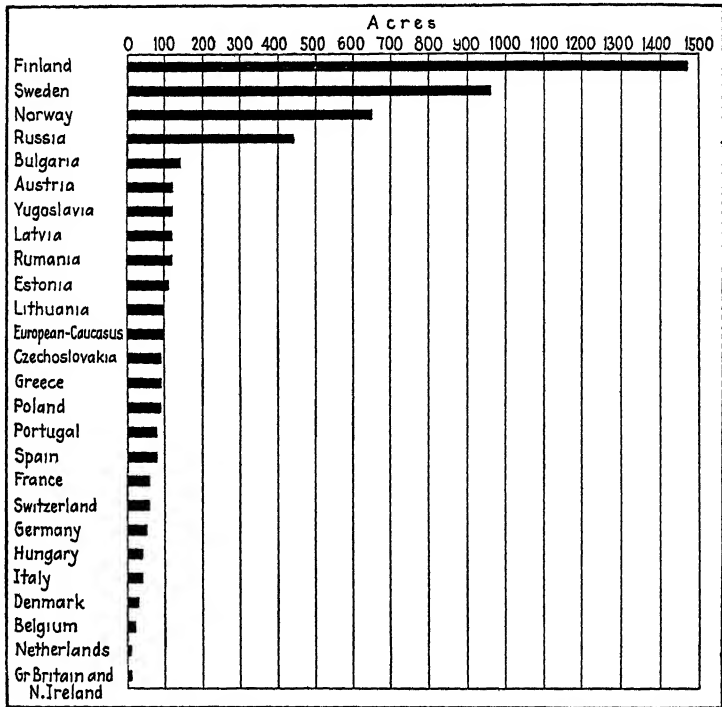


FIG 248.—Number of acres of forests per 100 inhabitants for the countries of Europe. (Data from Zon and Sparhawk's *Forest Resources of the World*, McGraw-Hill Book Company, Inc.)

boulders and of draining and fertilizing is very high, and there is much land in central and north Finland better suited to forest than to crops. In view of the small proportion of the land cultivated (6.2 per cent), and in pasture and meadow (3.4 per cent), it is surprising to find the population so dependent upon farming and stock raising.

As in Scandinavia, rye, oats, potatoes, barley, and hay are the standard farm crops. Because they are hardier, oats are gradually

¹ Capital invested in agriculture in 1923 was estimated at \$491,000,000, in forests between \$500,000,000 and \$600,000,000. However, agriculture employs and furnishes a livelihood to a far larger number of people.

displacing rye and now occupy twice as much acreage, although the latter is the chief human food and matures, in favorable years, even on the Arctic Circle. Because of the long summer days in the north, barley, which in the Åland Islands requires 116 days to ripen, will mature in 63 days in higher latitudes. Potatoes rank next to rye in the diet. The value of the harvest is increasing, yet agricultural production is insufficient for the population and food products constitute the bulk of the imports

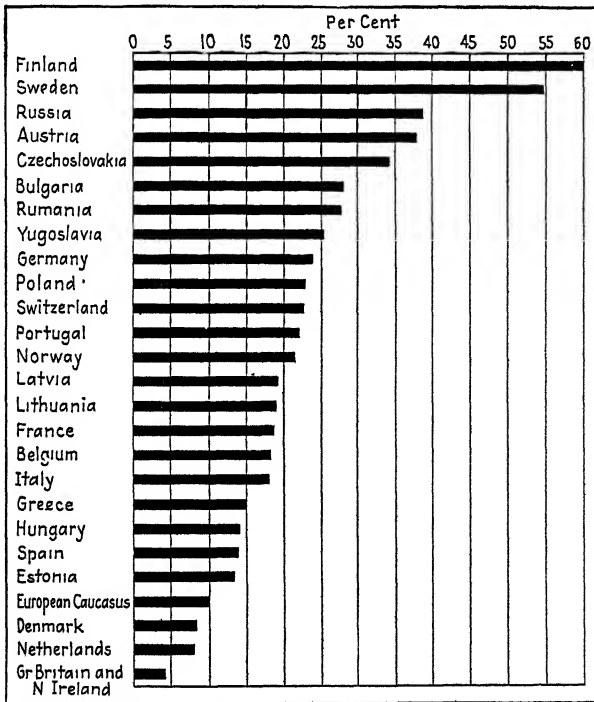


FIG. 249.—Ratio of forest area to total land area in countries of Europe. (Zon and Sparhawk's *Forest Resources of the World*, McGraw-Hill Book Company, Inc.)

Dairying has been growing rapidly in importance, and there are large and increasing shipments of butter, the principal foodstuff exported, with Britain the chief market. The returns from live stock and dairying in 1926 were about 50 per cent higher than from harvested crops, while the acreage of hay (1927) was greater than that of all the other crops combined. The growth of cooperative enterprises in the republic has been rapid, with over 3,000 large cooperatives numbering some 250,000 members in 1919.

Industry Based upon "White Coal" and Forests.—Lacking coal or iron but with extensive forests and many waterfalls, manufacturing has been

chiefly limited to woodworking and the making of pulp and paper. These account for almost half of the industrial wage earners while the rest are scattered among a number of activities, *e.g.*, textiles, chiefly for the domestic market. The total annual value added by manufactur-

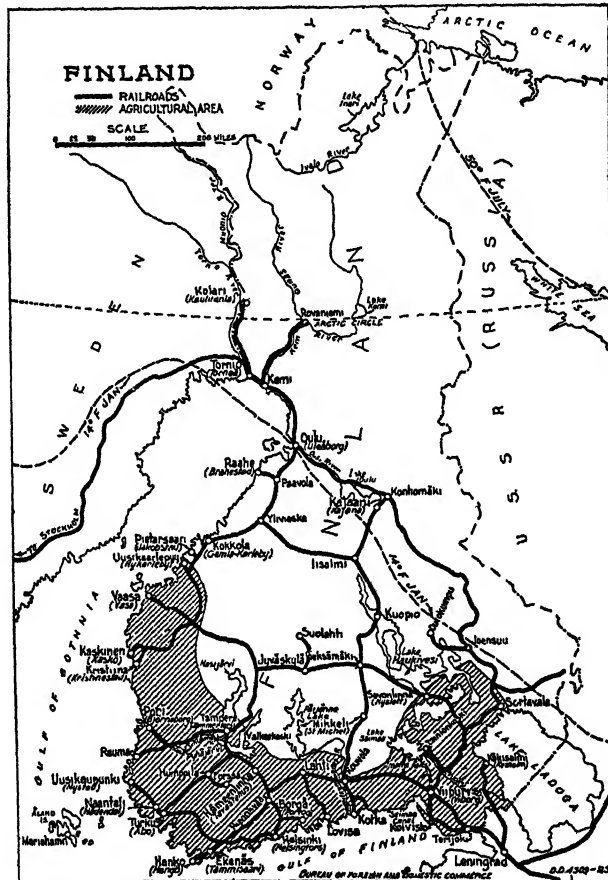


FIG. 250—The agricultural land of Finland is confined to the south where temperatures, transportation, and soil conditions are more favorable. Finland's Arctic coast is of little practical use.

ing in the whole country is about the same as that for a moderate sized American city, such as Indianapolis, although the latter uses only about one-fourth as many workers to produce this increment.

TRANSPORTATION

Difficulties of Transportation.—A sparse population, a difficult terrain, and a rigorous winter climate have combined to render the

problem of interior transport difficult. Inland waterways have a total length of about 47,000 miles chiefly of use for floating timber in summer and hauling it in the winter. About 2,500 miles are navigable for river craft and accommodate over 50,000 vessels, which move about 3,500,000 tons, mainly wood, each year. Both highway and railway construction under such discouraging conditions of climate and topography have been slow, especially in the north. Foreign trade is almost entirely carried on by sea, and port facilities are of major importance. Helsinki is the chief importing point, but exports move through a large number of outlets. Hanko (Hango) and Turku (Åbo) have been especially developed as winter ports, and ice breakers attempt to keep them as well as Helsinki open all through the year.

Sparse Population.—The population of 3,250,000 is less than that of Chicago, yet the country's area is twice that of Illinois, and its population density of 25 to the square mile makes it one of the most sparsely inhabited countries of Europe. The density varies, however, from 93 per square mile in the southwest to less than 1 in the extreme north (Fig 87). Ten per cent of the population are Swedes, while in the north are about 1,300 Lapps. As might be expected, Finland's population is predominantly rural. "Bred in the school of adversity," the Finns are a hardy, progressive, energetic race with a very low percentage of illiteracy, and Finnish emigrants to northern United States constitute one of our best elements. The chief cities are on the coast with Helsinki the capital leading with a population of about 200,000. Hanko on the southernmost point of Finland, even when the other ports are blocked, is usually kept ice free and serves as the most convenient butter port.

While the natural resources are so limited as to preclude a dense population or the development of a powerful nation in the ordinary sense, yet a commendable policy has been shown in attacking its agricultural and forestry problems. The area cultivated has increased 8 per cent from 1910 to 1920, and the number of farms operated by owners increased from 110,000 in 1901 to 182,000 in 1920, largely because of beneficial legislation. Approximately one-half of the cereal consumption is supplied by imports. The chief difficulty seems to be the low return for the farmer badly handicapped by his small capital. Hand labor still absorbs 65 per cent of the cost of agricultural production, but the introduction of modern methods, machinery, and drainage projects are being fostered by state loans of capital upon easy terms. With agricultural education and cooperative activities there should be continued improvement.

THE BALTIC STATES

Political Problems Growing Out of Their Position.—The three small nations of Lithuania, Latvia and Estonia, frequently referred to as the

"Baltic Republics," were, until recently, parts of the old Russian Empire. They lie in that north-south zone stretching from the Baltic to the Mediterranean, between the Slavs to the east and the Germans on the west, part of a belt of numerous states whose peoples, through the defeat of the Central Powers and the collapse of Russia, were enabled to organize independent governments.

The Baltic states are economically weak and their precarious geographical position renders their continued independence uncertain. The largest of them has but little more territory than West Virginia, all lack even a moderate variety of resources, while their neighbors are powerful and aggressive. Founded upon ethnological grounds, their land frontiers are mainly arbitrary lines without natural protective features. Their secession has reduced Russia's "window on the Baltic" to a mere "porthole," a condition not likely to be tolerated long by a great nation. Consequently, the foreign policy of these three republics is mainly the problem of preventing their reabsorption into the Russian State.

A Plains Region.—As a part of the Great Central Plain the surface features are much like those of lowland Germany or Poland on the one side and of Finland on the other. The characteristic evidences of recent glaciation—lakes, marshes, and morainic ridges—are present. The Baltic Sea projects far inland to form the gulfs of Riga and Finland, but the coast is mainly of the lagoon type, low and sandy. The rivers have cut rather deeply into the plain. They are regularly navigable only at their lower ends and their chief use is for timber floating.

A Continental Climate.—Though somewhat modified by the Baltic, the climate is essentially continental with winters long and rather severe. The rainfall is everywhere over 20 inches, ordinarily sufficient for general agricultural purposes. The rivers and the harbors, except those on exposed western coasts like Liepaja (Libau), Ventspils (Windau) and Tallinn (Reval), are frozen from 3 to 4 months of the year.

Agriculture Is the Chief Dependence.—The soil is the chief resource and agriculture the dominant occupation. The great majority of the people are peasant farmers. Until independence was secured, the lands were mostly held in large estates by German barons and the major domestic problem of the new governments has been the withdrawal of the land from these landlords and its redistribution to the peasants.

The soils and the severe winters all but eliminate wheat, except in the south. The hardy cereals—rye, oats, barley—thrive, while flax, potatoes, and sugar beets are of considerable importance. The same trends noted in southern Sweden, in the same latitude, are observable in these republics. Pasture is increasing at the expense of cultivated land, with live stock, particularly dairy cattle, replacing the grain crops. Realization of the fundamental importance of agriculture to their national

welfare is stimulating the government to foster zealously any movement to improve it, especially cooperation.

The flax industry deserves special mention, for while the acreage is not so extensive as for several of the cereal crops, this section is one of the leading flax producers. Lithuania ranks next to Russia and Poland in world flax production. Flax is raised both for fiber and for seed, more particularly the former, and is especially important as an export item as well as a raw material for local linen factories.

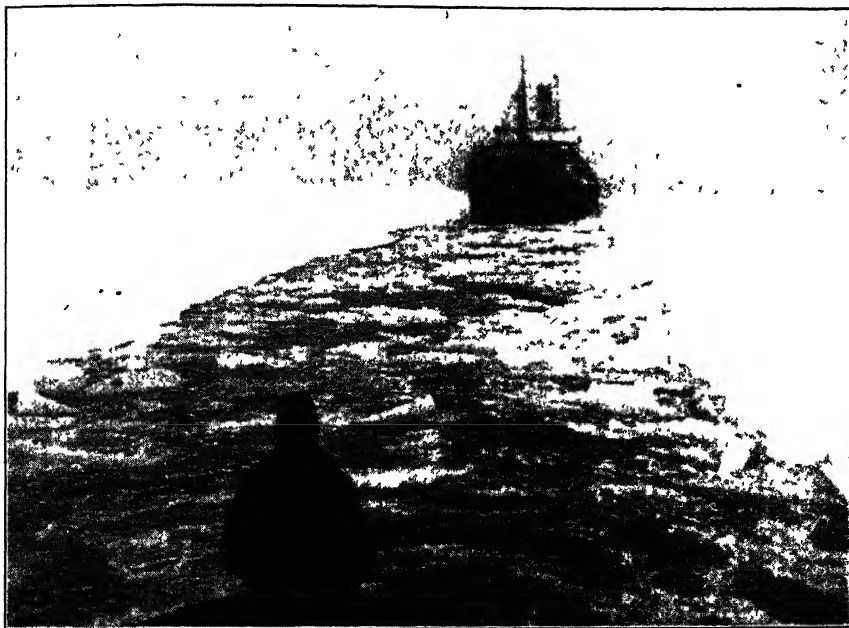


FIG 251 —Freighter entering harbor of Riga after channel has been made by the ice breaker whose stern is seen in the foreground. Though not able always to keep the channel open all winter, the closed season is much shortened by this means. (Courtesy J. F. Simons)

Forests, a Major Resource.—Next in importance to the soil and its exploitation are the materials and industries associated with the forests. All three states lie within the great coniferous belt of north Europe and timber covers over one-fifth of their surface. Lumbering, woodworking, pulp, and paper manufacturing are important industries and forest products constitute a large export item. The major part of the timber is state owned and cutting is carefully regulated.

Other Resources.—Minerals are of small importance. Rich oil shales underlie probably 2,000 square miles of Estonia and form the basis of a local petroleum industry making it the leading country in oil-shale exploitation. Clays and sands serve for construction material

and some amber is dug and worked There is no coal and but limited water power Peat and wood are used for domestic fuel.

Manufacturing and Commerce.—As part of Baltic Russia the coastal ports formerly had a large commerce and some industries of local importance. The erection of tariff barriers along the new frontiers closed the vast Russian markets and the subsequent decline in both the trade and industry of the cities has corresponded to the greatly restricted hinterland. Most of the manufacturing consists in working up the agricultural and forest products. Riga on the gulf of the same name and also on the river Dvina is the largest port, and Tallinn, Liepaja, Ventspils and Klaipeda are others of consequence (Fig 251) All, but especially the first two, carry on considerable transit trade, but Russia's nationalistic policy is diverting much of her traffic through Leningrad.

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CHAPTER XIX

POLAND

Poland, *i e*, the "polder" land or lowland, lies between Russia and Germany, a low featureless plain between two powerful and aggressive nations. This is the most important geographical fact underlying its varied fortunes in the past and the problems concerning its future.

Historic Background.—In the absence of natural boundaries, conflicts with both Prussia and Russia have, for centuries, been of frequent occurrence and the domain has expanded or contracted according to the fortunes of war. For several centuries Poland ranked as a first-class power, in the latter part of the seventeenth century extending from the Baltic almost to the Black Sea and from the Oder to the Dnepr. Internal dissensions, however, with which Poland has always been more or less afflicted, together with the growing power of its neighbors, resulted in reverses which culminated, a century and a quarter after its maximum expansion, in the famous partitions of Poland (1772 to 1795). Prussia, Russia, and Austria divided the country and added it to their own domains so that for the following century and a quarter Poland, as an independent country, did not exist. In spite of vigorous attempts to Russianize, Prussianize, and Austrianize them, the Poles clung to their language, religion, and national ideals. With the collapse of the three nations which had robbed it of its territory, Poland was, in 1918, reconstituted. The absence of definite limits, either physiographic or ethnic, made the determination of the new boundaries extremely difficult. In several places plebiscites were held to determine the wishes of the inhabitants. Access to the sea was felt to be necessary, although giving it has separated Germany, its most powerful neighbor, into two parts and provided a fertile field for future trouble.

SURFACE, CLIMATE AND VEGETATION

A Low Featureless Plain.—As a part of the north European lowland, the physical features as well as the soils of Poland are, in the main, the contribution of the great ice sheet. Throughout almost its entire extent it is a vast plain of low relief, monotonous and featureless, four-fifths of the whole area having an elevation under 670 feet. In the extreme south are the Carpathians, whose central portion, the Tatry, raise their granite peaks to a height of over 8,000 feet, while the north is bordered by morainic ridges known as the Baltic Heights.

The low elevation and lack of relief result in very imperfect drainage, as evidenced by some 4,000 lakes and extensive marsh lands. The Vistula, flowing across the middle of the country, dominates the drainage. Winding through marshy lowlands, now partly drained, it has built at its mouth an extensive delta covering approximately 600 square miles. Formerly a swamp, the delta has been reclaimed by dykes. The river volume in flood may rise to twenty times that at low water, and the waters are frozen on the average for $2\frac{1}{2}$ months. Where it crosses the old frontier it varies in depth from 3 to $5\frac{1}{2}$ feet. It is connected with the waterways of north Germany by the Bromberg-Oder Canal.

Climate.—The climate of the country is, in general, of the continental type, the marine influence decreasing from west to east. The rainfall ranges from 20 to 24 inches, and, since two-thirds of it comes in the summer, droughts are of rare occurrence.

Vegetation Cover.—In north Poland forest and marsh occupy the uncultivated lands, in the south it is steppe, always an attraction for the pastoral and nomadic invader. The lower slopes of the Carpathians have much fertile soil, especially in the west, but cultivation seldom goes higher than 2,000 feet where the forests begin.

Forests constitutes a valuable resource, about 23 per cent of the country being covered with tree growth. Two-thirds of the wood is pine, which is the chief lumber export, but about three-fourths of the forest products are used at home.

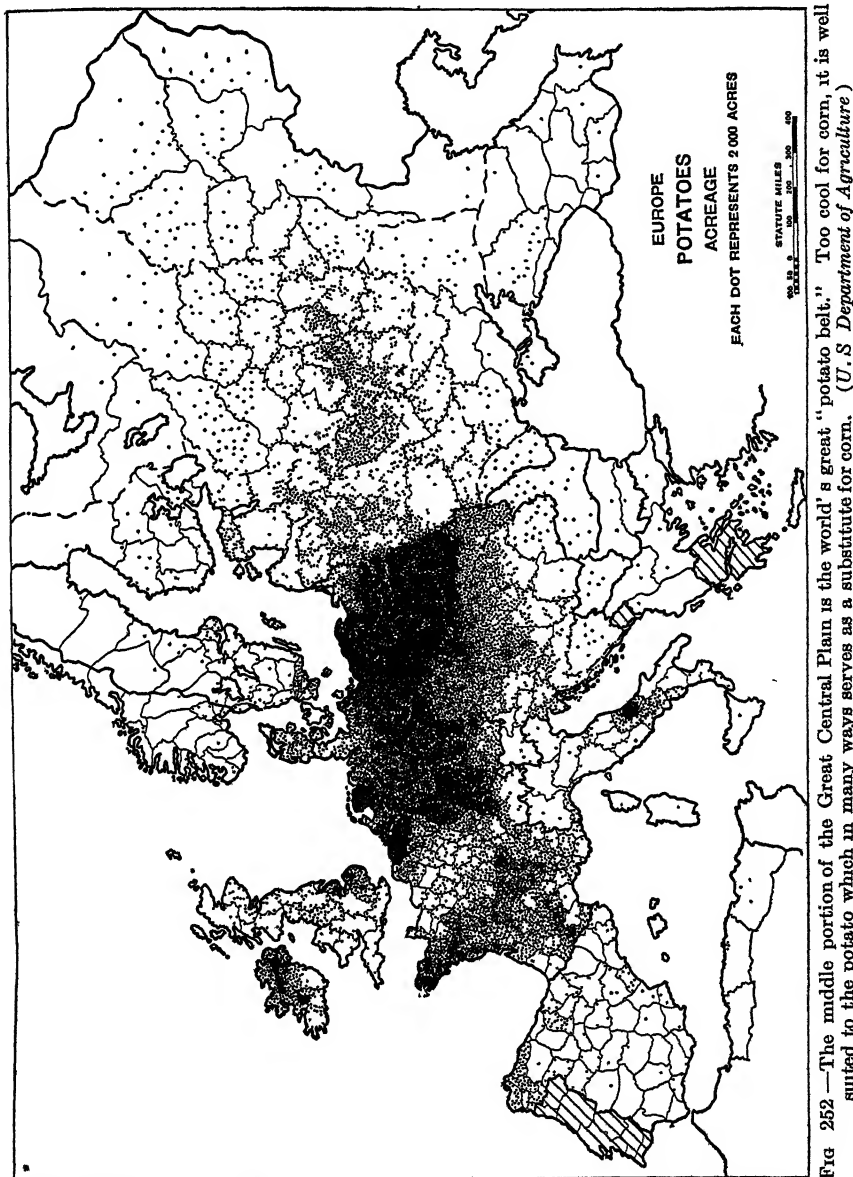
AGRICULTURE

Dominance of Agriculture.—Poland is essentially agricultural, almost two-thirds of the population being made up of farmers and forest workers, four times as many as are supported by mining and manufacturing (1921). Considerably over one-third of the whole area is arable land, and another third of the country is in forest and meadow land. In general, the proportion of arable land decreases and that of forest increases from west to east. The Carpathians on the south and the extensive marsh lands on the east reduce the amount of cultivable land in those sections.

Variation in Crops and Yields.—The rolling glaciated plains vary greatly in productivity from place to place. Both soil and climate, like those of north Germany and Russia, are only moderately favorable, being best suited to rye, oats, and potatoes, with wheat, flax, and beets occupying the richer clay loams. Seventy per cent of the cropped land is devoted to the first three mentioned, Poland ranking third among European countries as a potato grower.

The most important factor, however, in accounting for the marked differences in yields in various parts of Poland is to be found in the past political ties. Western Poland, formerly a part of Germany, shared in the intensive, efficient, and scientific agricultural regime which has

characterized the use of the land in that country. Here are to be found progressive farmers, securing high yields through crop rotation, scientific



fertilization, and animal husbandry. In eastern Poland, on the other hand, the backwardness characteristic of most of Russian farming is found. Yields are low and material as well as cultural progress lags.

The contrast may be shown by a comparison of wheat yields. The average annual production per acre in Posen (German) was for 1908 to 1912, more than three times that in Vilna (Russian) while that in Lwów (Austrian) was more than twice as great. The records of other crops show about the same difference, those for Poznań averaging from $2\frac{1}{2}$ to 4 times those for Vilna and Grodno. Even where the eastern provinces have the advantage of better soils, as in Wolhynia, the yields are inferior to those of the northwest. Obviously, while climate and soils are to be reckoned with, the chief responsibility lies with the economic and historic rather than the purely physical factors.

For the country as a whole, Poland is a land of poor peasant farmers. The population density is large, for an agricultural country, being five or six times that of the United States. As a consequence, the cultivation is rather intensive and the returns per worker small, with the result that capital is scarce and poverty is general. Normally the country is self-sufficing in foodstuffs, but there should be a large exportable surplus when its agriculture becomes modernized.

Poor Land System.—In common with the other countries of eastern Europe, Poland's agrarian system was cursed with great landed estates and a large landless peasantry. Before the post-war reform began to break up the large holdings, it is said that 18,000 landlords held title to 40 per cent of the whole of the territory. On the other hand, in some of the congested portions of Galicia over 18,000 people owned less than 18,000 hectares (44,500 acres) of land, or less than $2\frac{1}{2}$ acres each.¹ Under the law providing for the division of the large estates, some 500,000 acres are to be reapportioned annually. At this rate readjustment should be completed by 1934 or 1935. Holdings are limited in extent, the size depending upon the location. It is estimated that the land affected by the reform involves about 8,836 square miles of arable soil, or an amount larger than the state of Massachusetts.

MINERAL RESOURCES

Southwestern Poland Highly Mineralized.—In southwestern Poland and extending into adjacent Germany and Czechoslovakia is one of the

¹ E. Dana Durand gives a striking comparison of land holding in crowded parts of Poland with those in Iowa.

"Lwów, the most densely populated province, has a *farm* population of over 200 per square mile, Iowa has less than 25; 97 per cent of the Lwów farms are less than 25 acres each, in Iowa 76 per cent are between 50 and 260 acres each. Less than one-half of 1 per cent of the farms of Lwów have over 500 acres each, but these together own about 43 per cent of all the land in farms. In Iowa less than 5 per cent are of this size. The middle-sized farm dominates in America. It is a negligible factor in most parts of Poland; in Lwów only 4 per cent of the land is in farms of between 50 and 250 acres, the prevailing size in Iowa."

great mining and industrial districts of Europe, the famous Silesia-Moravia-Kracow coal basin (Fig 253). In addition important deposits of zinc, lead, and some iron ore occur, while near by in Galicia are found both petroleum and salt. Thus there exist the fundamental resources to support an extensive industrial population employed in the exploitation of the mineral deposits and the various manufactures dependent upon them.

The Division of Upper Silesia.—The great mineral and industrial wealth of the area has long made it a bone of contention among the neighboring countries. Its assignment at the close of the World War was one of the most bitterly contested of the various territorial problems, particularly since the population of the Upper Silesia section is mixed

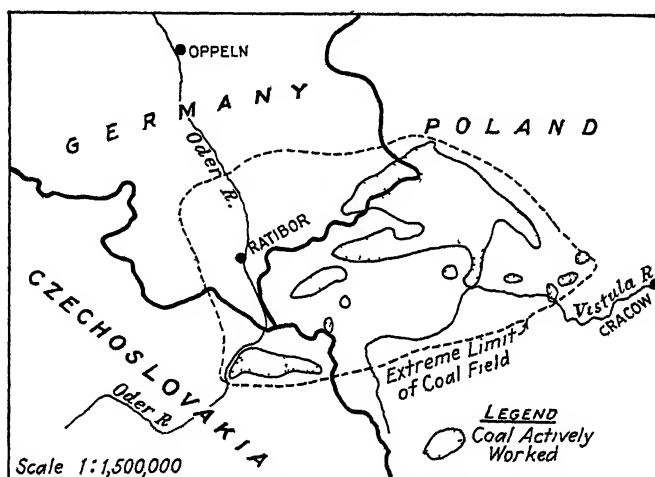


FIG 253 —Silesia-Moravia-Kracow coal basin showing political ownership.

Polish and German. As finally settled, Czechoslovakia and Poland divided the Teschen field, the former receiving from Germany the larger western portion as well as a small section of Upper Silesia. The Teschen area given to Czechoslovakia is of particular interest because it is an important source of coking coal, a grade in which this region as a whole is deficient. The division of 4,100 square miles in the major Upper Silesia region between Poland and Germany resulted, after a plebiscite, in the larger part of the territory going to the latter, while Poland received the larger share of the minerals. Of the coal output, she acquired 80 per cent; of the zinc and lead, 70 per cent; of the coal reserves about 90 per cent; and practically all of the iron ore, while the industrial plants using these products were assigned in about the same proportion as the mines.

The separation of such a highly industrialized unit as Upper Silesia was bound to work hardship. Many integrated industries involving the

close cooperation of mines, smelters, and manufacturing plants would be unavoidably separated by the drawing of an ethnic boundary. An elaborate set of agreements to insure reciprocal rights of trade and transport was provided (1922) to be effective for 15 years, or during the period of readjustment.

Coal.—With the Upper Silesia award Poland now has some 1,969 square miles underlain with coal of which almost one-half are in Upper Silesia, nearly as much as in the Krakow, and a remaining 300 square miles in the Dombrova districts. Within the so-called "industrial triangle" the major part of which went to Poland, the production of coal per unit area is one of the greatest in the world. At one place six veins have a combined thickness aggregating 60 feet of coal. Mining is easy and the quality of the coal is good, although most of it is, unfortunately, non-coking. The country's total reserves are estimated at almost 70,000,000,000 metric tons and its output of about 40,000,000 tons gives the country high rank in this valuable resource. Over one-fourth of the output is exported.

Other Minerals.—Of the other minerals lead is important, Poland ranking fourth in Europe in its production (1926) as well as second in zinc. The iron ore production, about 500,000 tons annually, is small and seems destined to grow smaller with the gradual exhaustion of the deposits. In oil output Poland ranks third in Europe, after Russia and Rumania. The petroleum district, where oil was found at about the same time it was discovered in Pennsylvania, is on the northern slope of the Carpathians in southeastern Galicia, extending over a distance of about 240 miles from the western frontier to the Rumanian border. The yield is declining, the peak having been reached in 1909, and the present output of over 5,500,000 barrels represents only 0.4 per cent of the world's production. About one-half of the output is exported. Foreign capital, especially French, is chiefly responsible for the development. It is probable that production will rise when the deeper sands are more extensively tapped, most of the present wells being shallow, for deeper productive sands are known to exist.

Potash.—Deposits of potash of considerable extent have long been known. Two areas have been proved, one in the west, including large parts of the provinces of Poznań and Lodz, the other, in the southeast, near the Carpathians in old Galicia. The exact extent of these salt deposits is not known, their active exploitation being a post-war development. Under prewar conditions the German potash interests, which were located between the Elbe and the Weser, were influential enough not only to restrict exploitation of other fields within German territory, as in Poznań and Alsace, but to exert pressure at Wien so that the policy of the Austrian Government was to discourage development in Galicia.

The exploitation of potash resources in independent Poland has also been slow, due to lack of capital and a disorganized market. The output is growing, however, although not yet able to supply the entire domestic needs. The prewar use totaled 400,000 metric tons, while the 1925 production was only 150,000 metric tons. The consumption in 1925 was about 215,000 metric tons, most of which was in former German Poland where agriculture is more scientific.

MANUFACTURING

Industry Secondary to Agriculture.—Although predominantly agricultural, Poland has a considerable industrial development. In her exports, for example, manufactures are twice as important as are raw materials.

Naturally the industrial section is in the south where both mineral raw materials and fuels are found. Polish Silesia is thus the most highly industrialized, one-half of its population being engaged in factory and mine as compared with an average of 15 per cent for Poland as a whole.

Chief Industrial Items.—Textiles are the most important item among the manufactures, followed by food products and iron and steel goods. Lodz, the chief textile center, though not on, is close to the coal field. The concentration here has been due largely to artificial stimulation by the Russian Government during the period when this was Russian territory. The government encouraged the immigration of skilled workers and by a high protective tariff made all Russia a protected market.

The fabrication of food products has become important, especially in the northwest. Sugar factories, breweries, potato establishments, as well as the flour mills depend upon local agricultural crops for their raw materials.

The iron and steel industry of the Upper Silesia district was originally based upon local ores, but the output of the latter has been decreasing owing to exhaustion of the deposits. The production of about 500,000 tons of ore is entirely inadequate, and imports from Sweden, Austria, and other countries are needed. The output of zinc for Upper Silesia was prior to 1914 about one-sixth that of the world. The largest of the zinc corporations has recently been taken over by American interests.

Polish industrial equipment is much larger than is needed to supply domestic needs. With territorial adjustments the large protected markets of Germany, Russia, and Austria were lost, so that not only manufactured goods but mine products, such as coal, petroleum, zinc, and lead have had to seek foreign outlets.

TRANSPORTATION AND TRADE

Topography Level but Rivers Shallow.—The vast level plains which dominate the topography, the Vistula which traverses the entire length of the country, together with an intermediary position provide a natural setting most favorable for the establishment of a network of interior transportation routes.

Though the Vistula is the main waterway of Poland and the river best suited for navigation on the plain east of the Elbe, it has been much neglected and used but little above Warszawa. It is joined by canal with the system of interior waterways to the west, but the connecting channels are too shallow for efficient transport, while the river itself requires extensive and constant dredging to make it an important carrier. In 1914 the trade of Danzig with the interior was five times as large by rail as by river.

Danzig.—Danzig though predominantly German is the natural outlet for Poland, and with its intermediate hinterland was internationalized¹ Poland was granted a "corridor" to reach it but has preferred to build a port (Gdynia) a few miles north of Danzig, entirely within her own territory.

Foreign Trade Small.—The foreign trade of Poland is small in proportion to the population, one of the smallest in Europe, only the Balkan States and Russia being lower. There is considerable export of coal and timber via Danzig, Polish coal being at present the main dependence of Scandinavia. The location of the coal basin and the industrial area so far inland places the export of coal and steel and the import of iron ore under the serious handicap of a long rail haul to or from the coast. Total exports in 1927 paid for about 87 per cent of the imports.

PROBLEMS

Domestic and Foreign Problems Serious.—Of the problems which confront the reconstructed Poland, several are of prime importance, the major one, already mentioned, being that of the lack of strategic or even definite ethnic limits on the east or west. This is especially serious since powerful neighbors on these borders are likely to dispute the boundaries. There has been friction on all sides and the existence of a corridor separating East Prussia from the rest of Germany provides an especially vexatious situation. Added to the political question is that of religious differences. About two-thirds of the population are Poles, the great majority of whom are Roman Catholic but there is a large

¹ The free city of Danzig includes 750 square miles or about ten times the size of the District of Columbia and has a population of about 350,000. It has been established as an independent state under the League of Nations but foreign affairs and transport facilities are shared and administered by Poland to whom in return it furnishes a free port

Jewish minority. Germany, the most powerful and hostile of the neighbors, is Protestant, while Russia is Greek Orthodox or Agnostic.

With the possible exception of Serbia, Poland suffered more than any country of eastern Europe from the devastation of war activities. Poor to begin with, the country was unable to cope with the problems of relief, distress, and want, of repairing the damage to transportation and industries. Local capital is scarce, and, in view of the past history of the country, foreign investments have been slow to enter, and German management and capital have been for the most part withdrawn so that the economic recovery of the country has been slow. The Polish people seem unwilling as yet to lay aside partisanship and petty rivalries and jealousies for the sake of working for the nation as a whole. The lack of internal unity and teamwork has always been one of the country's great weaknesses. It has the fundamental requisites for a fairly well-balanced economic life, and with peace could gradually rise to the cultural level of western Europe.

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CHAPTER XX

THE HUNGARIAN PLAIN

PHYSICAL FEATURES

A Great Inland Basin.—Eastward from Austria the ranges of the Alpine system separate, the southern limestone belt branches southeastward along the Adriatic west of the Rhodope Massive and the Balkans, while the northern ranges, continuing as the Carpathians, swing eastward in a great arc to meet at the Iron Gate, completing an almost closed mountainous rim. The great basin thus encircled has been a region of subsidence and, within recent geologic times, has been covered by an inland sea. Wastes from the encircling mountains have filled in the depression to a depth, in places, of several hundred feet, even burying the old crystalline Alpine core, though the latter reappears in places. Remains of the former inland sea are to be found in the marshes, salt deposits, and lakes, of which Balaton is the largest.

In the northwestern part of the Hungarian Plain are two smaller basins. The Danube cuts through the barriers and unites these basins. Important cities are located at the narrows, Budapest between the Little Alfold and Great Alfold, and Bratislava at the lower entrance to the Wien basin.

The Danube.—Across this wide, flat, featureless plain winds the great Danube and its major tributaries the Tisza, Sava, and Drava. The absence of any considerable fall, together with the marked seasonal variation of the rainfall, subjects large sections to flood danger. Cities, roads, and railways for the most part avoid the immediate vicinity of the rivers, except where the ridges, approaching close to the channels, form narrows.

One of Europe's Large Fertile Areas.—The soils are in general highly productive. The lacustrine sands and clays over large areas have been covered with loess, to which humus has been added. The plain constitutes a westward outlier of the "black earth" of Russia and Rumania. In places, as between the Tisza and Danube, there are sand dune areas which have had to be "fixed" by planting trees. As a rule the flood plains are more fertile and the drainage divides less productive. Where the impervious clays are close to or at the surface, however, there are brackish ponds or marshes.

CLIMATE

Climate Marked by Extremes.—The climate is typically continental. Although the Carpathians afford considerable protection from the north winds, the winters are cold and dry, the summers hot. The average rainfall is between 20 and 30 inches with a maximum in spring and early summer. Unfortunately the actual precipitation varies much from year to year, and droughts alternating with floods are not uncommon. The climate is better suited to grass than to forest, so that the major part of the plain is a natural steppe land, which varies in different sections from scanty to luxuriant pasture.

AGRICULTURE

A Region of Surplus Food Production.—Favorable conditions of climate, soil, and topography have combined to make this a great agricultural region—second only to Russia as the chief granary of Europe. In yields per acre it is intermediate between those of northwestern Europe and the lands to the south and east. It is much less intensively tilled than such favored spots as the north Italian plain, but, as compared with the Mediterranean countries, it has the great advantages of levelness and a summer rainfall while its temperatures at that season are much higher than those of northwestern Europe—thus bringing it within the climatic range of corn production.

Cereals in West. Pasture in East.—Although there is but little waste land the western portion is in general more fertile, more rolling, and has a slightly heavier rainfall (24 to 40 inches) so that it is the more important region in the production of an agricultural surplus of small grains, especially wheat. Rye is grown on the lighter soils just east of the Danube ("Pest rye"), while sugar beets and tobacco are produced on the richer soils. Maize is the chief cereal in the central and southern portions, while in the east the lighter precipitation (20 to 28 inches) produces conditions more favorable to pastoral industries.

The basin of the Little Alföld is about one-sixth the size of that of the Great Alföld, possesses no sandy waste, has considerable tree cover, and a better rainfall regime. Its position nearer Germany and Bohemia and beyond the reach of the Turk during his long occupation of the plain have all combined to make this section much more advanced than the Great Alföld.

HUNGARY

Hungary occupies the heart of the middle Danubian plain. Settled over 1,000 years ago by the Magyars, nomadic horsemen from the Asiatic steppes, the earliest use of the land was as pasture for great herds

of cattle, horses, and sheep (Fig. 254). In the course of time the better sections were cultivated, and to the pastoral interests were left only those parts of the plain too dry or too rough for cropping, conditions found particularly about the mountainous margins.

AGRICULTURE

Dominance of Agriculture.—Present Hungary is almost wholly agricultural, practically the entire land surface being productive. Three-fifths of the total area is arable, next to Denmark, the largest proportion of any country of Europe. Cereals occupy over one-half the cultivated land, wheat being considerably more important than corn.

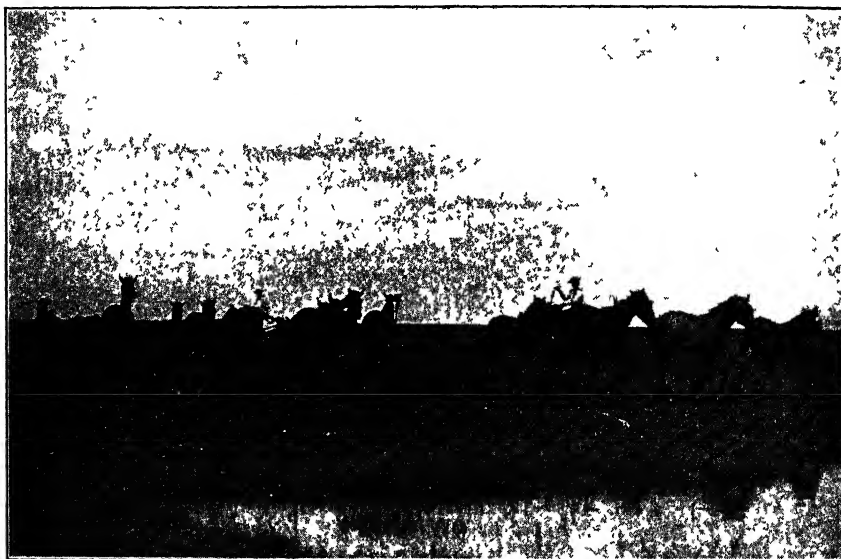


FIG. 254.—Herding horses on the Hungarian Plain. The Hungarians were originally nomads and horse breeding has always been an important occupation (Courtesy Hungarian Legation, Washington, D. C.)

Large Land Holdings.—One of the major post-war problems which confronts Hungary is the matter of land tenure. More than one-third of the whole territory is owned in 1,500 estates while five hundred times that many proprietors must share an approximately equal area. Attempts to divide the estates are resisted by the owners and little has been accomplished thus far.

Actual and Potential Production.—Agricultural methods constitute another problem. Production per acre is only about the same as that in Austria, which has much poorer land. * In wheat and potatoes the yield is about the same as in Illinois, but the corn yield is only one half as great. The density of her swine and horse population, too, is about the same as in Illinois. The last few years have witnessed much more activity

on the part of the government's agricultural department. Greater use of machinery is badly needed, but financial conditions discourage such purchases at present. The flatness of the terrain makes drainage and flood control imperative for the use of some of the richest lands. Wells built for watering, trees planted for timber and for fixing the movable sands, levees constructed for restraining flood waters are lines of improvement, but the reclamation problem has hardly been well started. The immensity of the task may be seen from the fact that almost 10,000,000 acres have been reclaimed in the valleys of the Danube and Tisza whose channels are restrained by over 3,800 miles of dykes, more than enough to reach from New York to Berlin. It is estimated that there are over 5,000,000 acres of barren lands until recently considered unfit for agriculture because of underlying hardpan, but which experiments indicate may be reclaimed

TRANSPORTATION

Routes to the Sea.—Although the Hungarian Plain is practically enclosed by a mountain rim, there are several openings which provide egress for transport routes. The commercial importance of the Danube has been dealt with elsewhere. In addition, the Moravian Gate gives access to Upper Silesia and to eastern Germany. The Hungarian Government had spent much money in developing its port of Fiume on the Adriatic, as Austria had that of Trieste. Although Hungary's natural trade relations were toward the northwest, the former government by large expenditures had diverted considerable traffic through this port. In 1913 the sea-borne trade of Fiume was 2,250,000 tons, making it a formidable rival of Trieste.

In spite of the fact that Fiume is to the southwest and that her chief markets lie to the northwest, Hungary is still looking to the Adriatic for an outlet (Fig. 310). Semihostile countries on all sides make her negotiations difficult, for in order to reach the sea she must cross the territory of some one of her neighbors. Hamburg offers accommodations, but Czechoslovakia or Austria must be crossed, and the distance is long, although the German railways are offering low rates; out by way of the Danube means crossing unfriendly Rumania, and increased competition of Russian wheat; Fiume is only about 269 miles from Budapest, but Yugoslavia must be crossed, and the latter prefers that Hungary use the new port of Split now being built. This is one day's sail nearer the Mediterranean and rail rates on Yugoslavian railways have been made as low as to Fiume.

POPULATION

Cities.—Budapest, Hungary's capital, like Bratislava and Wien is situated where the Danube narrows, making bridging easy. Buda,

the administrative section, is built on the hills on the right bank, while the commercial Pest across the river spreads over the plain. Budapest profited through the political, commercial, and industrial favors showered upon it by the Magyar Government. The railroads were built to radiate from the capital, and a zoning system of rates provided cheap transportation thither from the most distant parts of the country. The city became a great flour-milling center, ranking next to Minneapolis in that industry. Most of Hungary's cities are agglomerations of villages covering much territory. Thus Debreczin with less than 100,000 population covers about 350 square miles, about one-half that occupied by Greater London with more than seventy times as many people. Scattered farm houses are rare, village life having been the natural arrangement for protection during the long struggle with the Turks.

POST-WAR CONDITIONS AND PROBLEMS

Industry Handicapped.—After the World War Hungary faced a disrupted industrial organization which has not yet been readjusted. Of her former territory and population she lost somewhat over two-thirds. From the standpoint of industry she still produces three-fourths of her former output of coal, sufficient for her non-industrial needs, but only one-fifth of her former output of iron ore, and that of poor grade, while five-sixths of her timber industries, including woodworking and paper making, have been lost. Even before 1914 vigorous efforts had been made to attain a greater degree of industrial independence, and that desire is still strong, but except in textiles, which are heavily subsidized, little progress has been possible. Though her industrial equipment inherited from the prewar kingdom—including population employed in manufacturing—is larger than the supply of raw materials left to her, it seems inevitable that her future development lies in the intensification and improvement of her agriculture and stock breeding. Such industries as brewing, milling, sugar making, and others associated with the preparation of her agricultural products are logical, but her chief dependence must be on her soil.

Racial Animosities a Major Problem.—Present problems have their origin mainly in the country's history—particularly in the past relations of the races. Old Hungary contained non-Magyar peoples, subject races whose economic, social, and political conditions were made all but intolerable by Magyar oppression. With the defeat of the Central Powers, of which group Hungary was a member, that country's border lands, largely inhabited by non-Magyars, were detached and added to her neighbors on three sides. Considerable numbers of Magyars inhabited the lands to the east; in fact, in order to give strategic advantages to Czechoslovakia, Rumania, and Yugoslavia, there were included within those regions some border zones predominantly Magyar. Such

boundaries, largely arbitrary, worked havoc with transportation lines and the cooperation of industrial, mining, and agricultural sections, so that economic disorganization approached a state of chaos. To the tragic consequences of the World War was added a brief but disastrous communistic regime, an invasion by Rumania, and a short civil war. As with Austria, the aid of the League of Nations was finally invoked, a loan made, and, after brief wardship under one of the League's representatives, the country began a reconstruction program. Of all the defeated nations, the Hungarians feel the most bitter, openly declaring that when an opportunity comes they will force a revision of the peace terms. This hostile feeling, in view of the unbalanced condition of present resources and the necessity of foreign trade makes commercial intercourse and economic recovery slow. Agricultural Hungary, however, did not suffer so much as industrial Austria, particularly Wien, for, as a nation of farmers, she was at least independent in foodstuffs. She is also less distracted than most of her neighbors by sectional controversies and racial conflicts.

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CHAPTER XXI

RUMANIA

Ethnic Background.—Much of what is now Rumania became, in the second century of the Christian era, a Roman province. In spite of the fact that Roman rule was maintained for only 150 years and was followed by successive invasions of Goths, Slavs, and Turks for over 1,000 years, the Latin influence is still discernible, especially in their speech. Although the population is mixed, with Slav blood predominating, the Rumanians take great pride in their early Latin associations, considering themselves on a distinctly higher cultural plane than the more purely Slavic peoples about them.

As an independent nation Rumania has had but a brief existence—little more than a half century in fact. Her greatest expansion came, when, as one of the Allies in the World War, she demanded and received at the peace conference additional territory inhabited in part by Rumanians so that her prewar area and population were more than doubled. The annexation of Bessarabia, the country between the Pruth and the Dnestr, has sown seeds which promise to be especially troublesome to Russia, which has never acquiesced in the transfer, is by far the stronger nation and will undoubtedly try to regain this very desirable territory. Along with the newly acquired territory, she has inherited alien minorities which have complicated both foreign and domestic relations. In view of the government's traditionally hostile attitude toward the Jews, the treatment of the new racial minorities will be watched with interest. In size, the country is about as large as Italy but far more dominantly agricultural. The population density is less than one-half that of the latter but about three or four times as great as in our own agricultural states of Iowa and Nebraska.

MAJOR PHYSIOGRAPHIC DIVISIONS

Rumania's boundaries are for the most part ethnic rather than strategic, and include parts of three major physiographic regions. On the west the country occupies a part of the great Hungarian Plain; on the east and south, an extension of the Russian black earth region; while across the middle, from north to south, run the broad Carpathians, a part of the great Alpine system. The absence of easily defended boundaries, especially along parts of the Hungarian, Russian, and Bulgarian

frontiers, constitutes a national weakness, since Rumania's expansion has been at the expense of these three powers and their present relations are far from friendly.

Carpathians.—The outstanding physical feature of Rumania is the Carpathian Range. Entering at the north these mountains run south-east, then bend sharply westward to cross the Danube at the Iron Gate. Extensive plateaus and foothills flank the main ranges, particularly on the west. The great Carpathian arc is completed on that side by the Bihar Massive, within whose mountainous rim lies the Transylvanian basin, a low rugged plateau.

The mountains and bordering foothills are forested, conifers on the high Carpathians, beech and oak on the lower hills. Many basins, fertile and agriculturally productive, are found in the plateau region, and grazing is an important adjunct to cultivated cereal crops. In the northeastern part of the country, the plateau receives less rainfall, the hills are barer, and the valleys wider. The Dobrudja, Rumania's only territory across the Danube, is a semiarid steppe region, except in the north where the Danube delta widens into great marshes.

Plains.—Either side of the great mountain-plateau region is flanked by the plains of Rumania. One, the smallest, lies to the west of Transylvania and is part of the Hungarian Plain. It is a narrow but fertile, well-tilled, and highly productive agricultural zone extending from the Banat to the Czechoslovakian border.

Eastward and southward from this mountainous backbone stretches the main lowland, the heart of the country, and one of the world's leading cereal-producing areas. It is a westward extension of the Russian black earth, the same level steppe region of loessial soils, with a climate well suited to cereal production. Agriculture, the chief industry of Rumania, is here found at its best, and its products not only furnish a large part of the domestic food supply but also play a major role in the export trade.

CLIMATE

A Continental Climate.—The climate is continental with temperatures ranging from 100° F. in summer to 30° below zero F. in winter. The rivers are ice bound on the average for about 3 months of each year. The rainfall maximum occurs in the summer, but the total annual precipitation is rather light—about 25 inches—and somewhat irregular. In general, rainfall is the main critical factor in Rumanian agriculture, and climatic vagaries are reflected in marked fluctuations of output (Fig 255).

AGRICULTURE

A Great Agricultural Nation.—A large proportion of arable land—about 41.6 per cent of the total area—a level surface, a temperate climate, and water transportation combine to make Rumania, in proportion to her size, one of the world's great granaries. Of the cultivated land 85 per cent is in grain, with corn and wheat leading (Fig. 256). The former has a slightly larger acreage, but, since it is a staple food crop domestically, there is a larger export of wheat. Oats, rye, and barley are likewise important crops

Animal production is, for the country as a whole, distinctly subordinate to cultivated crops. Transylvania, with its rough topography, leads in live stock in proportion to area and population. Many oxen

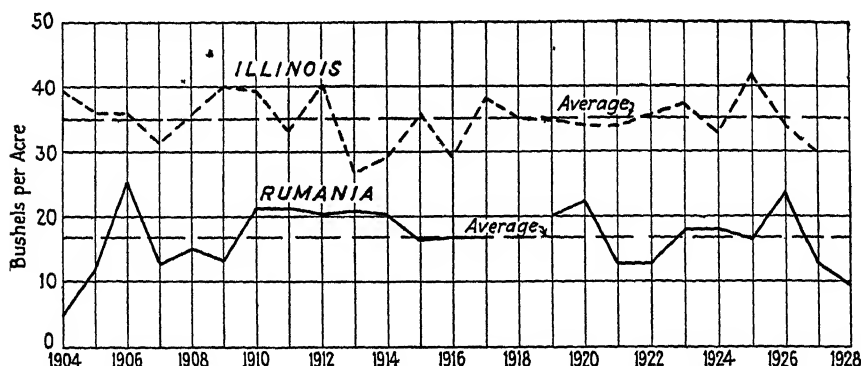


FIG. 255.—Corn production per acre in Illinois averages about double that of Rumania. Furthermore, the fluctuations in the latter are larger, more numerous, and, because of the low average, much more serious than in Illinois. Rainfall differences are largely responsible for the contrasts shown.

are raised for draft purposes, but the number of sheep per 1,000 population is three times that of cattle.

Climate, the Critical Factor.—While most of old Rumania and Bessarabia possess exceptionally fertile soil, the climatic fluctuations make agriculture more or less of a precarious occupation. Extremes of temperature and rainfall are frequent; droughts alternate with floods, hot weather with cold; so that successful agriculture in this region demands an unusually intelligent and industrious farmer. Moisture conservation methods are particularly necessary, and, while practiced to a considerable degree on the large estates, are difficult to carry out among a peasantry mostly illiterate, indolent, and poor.

Poor Economic and Social Conditions of Farmers.—About four out of every five of the people of Rumania depend upon the soil for a living, yet the great mass of peasants are poverty stricken and illiterate in the extreme, agricultural methods are primitive, and the crop yields among

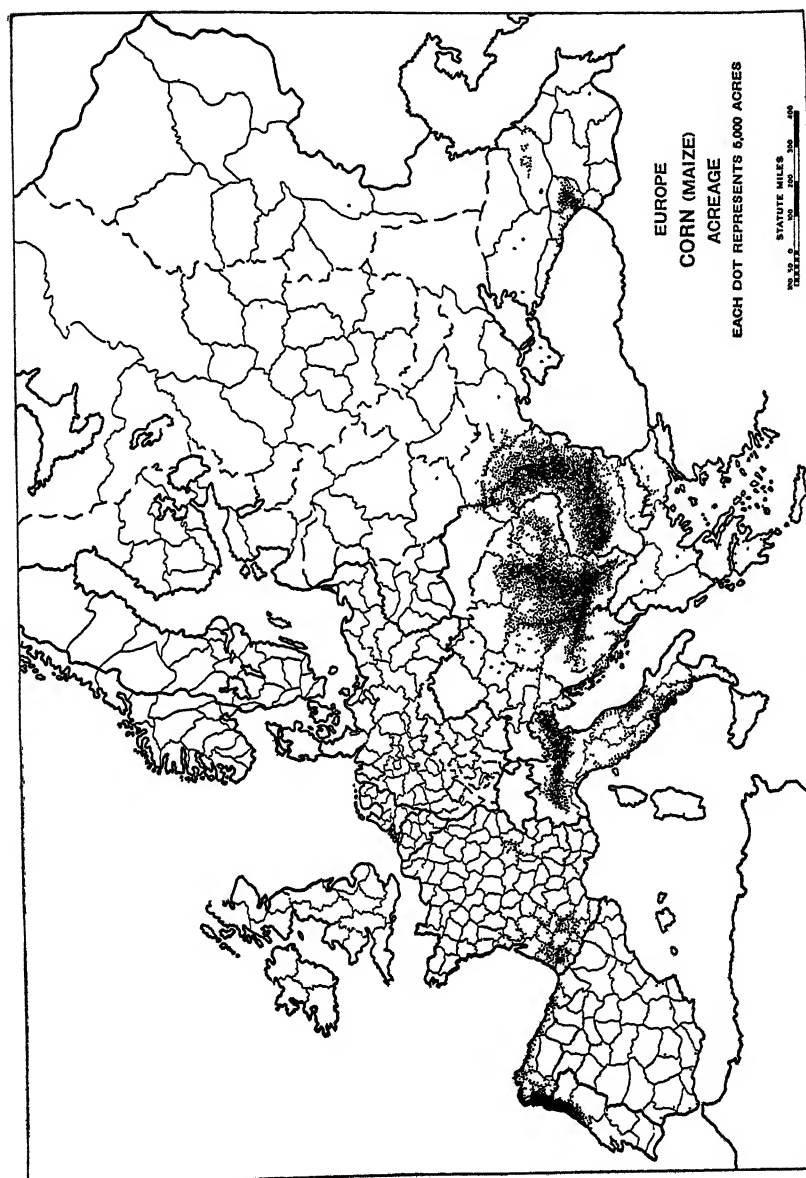


FIG. 256.—Europe produces about 12 per cent of the world's corn crop. The area suited for corn is limited, the total acreage being less than the area of the state of Illinois (U. S. Department of Agriculture)

the lowest in Europe, a condition arising rather from economic and political than from geographical causes.¹ Their tools are crude and machinery almost entirely lacking; grain is sown broadcast by hand, harvested with a sickle, threshed by the treading of oxen, and the grain is winnowed by tossing it up to let the wind blow out the chaff.

Land Ownership.—Agrarian reform has been a national problem of long standing. Although serfdom was abolished in 1864, the liberated peasants remained landless and wretchedly poor (Fig. 257). During the succeeding 50 years outbreaks occurred repeatedly, each followed



FIG. 257 —A Rumanian village. (U. S Department of Commerce)

by half-hearted measures on the part of the government looking toward the redistribution of the monastery estates, the crown lands, and large private holdings, but their failure to provide adequate relief is evidenced by the fact that up to 1918 less than one-half of 1 per cent of the agriculturists owned almost one-half the farm land of the country while the remaining 99.5 per cent were, for the most part, without any land or had holdings too small to properly provide for their needs.

¹ "The Rumanian peasant is not industrially or commercially inclined. Serban says, 'The gypsy works only under stress of hunger; the Rumanian only from need; the Hungarian for a peaceful life; the Slovak and German for profit' There are 108 days when the peasant of Rumania feels obliged to do no work, and there are a series of holidays at critical times in the agricultural year. Weather conditions enforce further idleness so that in Rumania, as in Serbia, there are probably only 75 to 80 days of actual field labor. The remainder of the time is spent in meditation and pottering around." U. S Dept. Agr, *Tech. Bull.* 126.

The war and the political changes which followed furnished an opportunity to remedy the old evils. The expropriation of the large estates is now under way, the reform being applied to all of Greater Rumania. In lands acquired from Hungary this measure operates to oust many of the Magyar landlords, dividing their land among Rumanian peasants, thus giving rise to much racial antagonism. In addition to 1,000,000 acres still remaining in large estates, there is estimated to be about 2,500,000 acres of wet land which can be easily reclaimed.

Under the direction of a more progressive government it is hoped that agriculture may be modernized and intensified. The immediate effect of expropriation has been to reduce yields, but the war and the subsequent disorganization of the entire country make present figures of little importance, especially since readjustment is not yet complete. After all, a land problem still remains, for it is estimated that more than one-half of the rural population is still landless, and those who are not, have, on the average, decidedly inadequate holdings. Lack of capital and the inability of most of the peasants to read make improvement necessarily slow. Crop rotation, maintenance of soil fertility, seed selection, and the use of modern labor-saving devices are still essentially lacking. In spite of a comparatively dense population, the output has been only about a third of what it should be. Industrialization on a larger scale, for which the country possesses both fuel and raw materials, would be a partial solution for the problem of the large number of unemployed.

OTHER RESOURCES

Mineral and Power Resources.—Rumania ranks next to Russia among European countries in the output of petroleum, although the production is small in comparison with that of the world's chief contributors (Fig. 72). This, however, is no index of the possibilities. The former policy of limiting the use of foreign capital in exploitation of resources and industries has greatly retarded development; a recent change in this respect should stimulate this phase of national life.

Salt ranks next to petroleum among the nation's mineral resources. Natural gas production is considerable and provides more power than all the coal mined in the country. The output of the latter (chiefly lignite) is small. It has been estimated that the streams could furnish more than 1,500,000 horsepower, but, so far, less than 2 per cent of this has been developed.

Forests.—About 28 per cent of Rumania is forested, with Transylvania and the Carpathians the main source, and timber, while not exploited to the full, ranks next to agricultural products and petroleum in the country's exports. Lying near to many countries deficient in supplies of wood, there is an excellent market, and with improved

transportation facilities the exploitation of her forests could play a considerable rôle in the national economy.

TRANSPORTATION

Handicap of Transport.—Transportation facilities are, however, so deficient as to constitute a major handicap to the country's development. There is a pipe line from the oil field to Constanța, and another to the Danube, built by the Germans during the war, but both these and the rail facilities are entirely inadequate to meet the country's needs. In general the railroad mileage is comparable with that of the Balkan states, or the less developed parts of old Austria-Hungary. Only one bridge crosses the Danube. Part of the railways in territory formerly Russian were of different gage and must be rebuilt to coordinate with the other roads. Wartime destruction, insufficient capital with which to repair roadbed and rolling stock, and reorientation of railways in the newly acquired territories are problems with which the inadequate finances of the country have had to cope.

Waterways.—Rumania has considerable navigable waterways including the Danube, the Dnestr and the Black Sea. The actual utilization of these facilities is, however, restricted. Ice, the Iron Gate, the delta mouth, fluctuating depths, and low marshy banks handicap the use of the Danube. Through the Wallachian Plain the river varies from 6 to 16 miles in width and has a navigable depth of 7 or 8 feet as far as the Iron Gate. Braila and Galati are the chief upriver Rumanian ports on the Danube; Sulina is the delta port on the only mouth kept free for commerce. Grain is the chief freight. Constanța handles the main petroleum exports, as well as the winter grain movement. It is a Black Sea port able to accommodate large ocean-going vessels with the added advantage of freedom from ice throughout the year. In general, the waterways are of use only in foreign commerce.

Of the exports, foodstuffs, timber, and petroleum are the chief items, while textiles and metals constitute the main imports. The bulk of the foreign trade is with the countries of central Europe.

SUMMARY

Rumania in general is a land rich in resources but exhibiting little development, social, political, and economic conditions all bespeaking backwardness. Part of the economic difficulties are traceable to the war, yet the actual destruction was less acute than in a country of factories and large cities, and the recovery correspondingly earlier. The most fundamental ills are those of long standing: illiteracy, an unjust division of the land, the exploitation of the peasantry by a small group of landed aristocracy—features which have characterized her entire

history. With large agricultural, forest, and petroleum resources, and a surplus agricultural population, Rumania possesses a sound basis for the development of a well-balanced economic life.

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CHAPTER XXII

EUROPEAN RUSSIA. UNION OF SOCIALIST SOVIET REPUBLICS

RELATIONS TO THE REST OF EUROPE

Soviet Russia includes nearly one-half of Europe's area and one-fourth of its population (Fig. 260). Not only is it the largest European country in area and population, but its population is growing especially rapidly, and numerous other developments are taking place. Many people consider present-day Russia the most rapidly progressing country in Europe. Certain it is that the social and economic changes since the revolution of 1917 have been profound, and social experiments which are both radical and numerous are being tried, the outcome of which is being watched with deep interest by thoughtful people the world over.

Distinctiveness.—In many ways Russia is the most distinctive country of Europe. The Russian language differs radically from the languages of Western Europe; religiously, Russia is neither Protestant, Roman Catholic, nor Jewish; economically, she has been most self-sufficient, having by far the lowest per capita trade; culturally, even the architecture appears bizarre to the westerner. Furthermore the great majority of the people have very little interest or sympathy with Western Europe, and their ideals on many topics are distinctly different. The leaders, too, only partly resemble those of Western Europe, and many have such opposed ideals as to appear strikingly peculiar or original to westerners. Politically also, prewar Russia was perhaps the most bureaucratic of the European nations, and, since Bolshevism has dominated, Russia is unique politically.

Some of the distinctiveness of Russia is suggested by the oft-quoted phrases, "Asia begins with Russia," and "Scratch a Russian and you will find a Tartar." The latter phrase suggests, of course, that western civilization has penetrated only skin deep.

Some Reasons for the Distinctiveness.—The contrasts between Russia and the rest of Europe are partly due to rather obvious influences. Although Russia now touches the sea for long distances, nearly all the coast is closed by ice for long periods, and most of the coastal zone is sparsely settled. Historically, also, the Russians spread out from near the center of western Russia, not reaching the coast to any extent for centuries. Hence the Russians are essentially a people of the continental interior. They have remained an almost self-sufficient, chiefly agricultural people, seldom exchanging goods or ideas with the people of

the rest of the world, and having, in fact, only a small domestic commerce. This latter is partly because geographic and economic conditions are



FIG 260—Generalized ethnographic map of Russia in relation to the boundaries of the larger natural regions. Smaller ethnographic elements, like the Lapps in the north and the Kirghiz about the eastern and northern Caspian, are not shown. "Caucasian" refers to locality, not race. The Cossacks of the Don, Kirghiz east of them, and the Tatars about Baku constitute a broad belt of non-Russian population, with separatist tendencies, encircling the Caspian. (*Ethnography after Debes and natural regions after map by Hanelik in Rudnyckij, Der Ostliche Kriegesschauplatz, 1915. From Bowman, The New World*)

so similar in most of the well-settled region that near-by localities usually produce almost the same commodities. Furthermore, perhaps in part

because of this local self-sufficiency, the transportation facilities have been far less effective, or intensively used, than in western Europe.

Little Contact with the West —As is being increasingly realized, civilization is a delicate flower, nurtured by frequent friendly personal contacts between individuals having different ideas, experiences, and training. These personal contacts include, of course, those obtained by reading. Because of their location and environment, the Russians have been handicapped in having contact with any others aside from peasants quite similar to themselves. The inability of most of them to read has greatly restricted the other great means of contact by which culture is spread.

Partly because of the greater distances involved, the severe language handicap, and the poverty of most of the people, relatively few Russians have visited other lands. The millions of Jews who have emigrated from Russia (including the former Russian Poland), and the tens of thousands of Russian Mennonite emigrants, have not gone back to Russia to any extent, and have had little influence in enlightening most of the regular Russians. The Mennonites, by the way, are not Russians but Germans who emigrated to Russia a few generations ago to escape compulsory military service. In respect to the small contact with outsiders, the Russians resemble the Americans of the Mississippi basin a century ago.

The Russians also differ racially from most western Europeans, although a large majority are allied to the round-headed, brown- or gray-eyed people of central Europe. These several conditions, geographic, cultural, and lingual, discourage foreigners from visiting Russia, as has also the fact that nearer countries could be visited at less expense and with much greater ease, comfort, and enlightenment, as well as greater enjoyment from scenery and climate. Most of Russia has little or no natural scenery of the sort that tourists seek, and the climate for most of the year is not inviting.

Conditions Favoring Vastness.—The large size of Russia reflects the lack of natural barriers on the great plain which had, before the Russians occupied it, only a scattered nomadic population. Over most of this plain the Muscovites found it relatively easy to spread, except toward the west. The large population is in response to the large amount of arable land of this plain, which is more than that of the rest of Europe combined. The fact that the population of Russia is still increasing very rapidly (Fig. 94), when most of the other European nations have experienced a sharp decline in birth rates in recent years, reflects the fact that about four-fifths of the people are agriculturists, by whom children are far more readily and advantageously reared than by urban dwellers. Furthermore, most Russians are peasants, more than one-half of whom are illiterate and nearly all poor. The world over, such people still have relatively high birth rates. ✓

Some Causes of Radicalism.—The radical social experiments being tried in Soviet Russia reflect the fact that there is no large substantial middle class to act as a social balance wheel. Furthermore, since the urban descendants of peasants have obtained the reins of government, most of the former educated aristocracy has been driven out, killed, or impoverished. With the government now in charge of a class of people which was in virtual slavery until 1861 and badly subjugated until about 1900, and hence little bound by precedent or property, experimentation is to be expected.

Causes of Poverty.—The great mass of the Russian people are exceptionally poor, partly because of the erratic rainfall on much of the land. During favorable years crop yields are bounteous, because of the great fertility of much of the soil. The vast areas of nearly level land ready for the plow have invited exploitation. Hence a spread and rapid increase of population has been natural. But frequent droughts have repeatedly reduced enormous numbers to the verge of starvation and rendered poverty widespread. The drought of 1921 is reported to have caused the death of millions of people. Yet, there has been little else than agriculture to which they could turn, as most of Russia is relatively remote from the sea and from foreign markets, and the lack of local varied resources has discouraged diversification. Furthermore, the peasants have been exploited by the aristocracy more than in most lands. This has been possible partly because such a large proportion of them have been agriculturists, everywhere a hard group to unite to fight oppression. Likewise, with almost Asiatic severity, potential leaders of the oppressed peoples were seized and exiled or executed by the bureaucratic government.

EXPANSION OF RUSSIA

The discussion of the growth of Russia given in Chap. X needs only be summarized here. (1) Russia commenced in the western part of a great plain, and has expanded to include most of it. (2) The spread was facilitated by several rivers which radiated from near the original kingdom. (3) Except toward the west, the spreading Russians found the lands they entered sparsely populated by less advanced and weaker peoples, who caused no great difficulty. (4) To the west, however, not only was the land well occupied, but the people were not weaker, and hence there was little expansion westward. (5) The fact that Russia is essentially an interior land, with little contact with western Europe until recently, has also been significant in retarding the development of resources and in otherwise interfering with the economic and cultural progress of the people.

This summary of the conditions discussed in the chapter on Political Geography may advantageously be extended here to include additional influences and further details.

Desire for an Ice-free Port.—The Muscovites spread out in all directions from their home area near Moskva (Moscow), following down the rivers which radiate from the low Valdai Hills, the western Dvina to the Baltic Sea, the Dnepr (Dnieper) and Don to the Black Sea, and the Volga to the Caspian Sea. The spread was gradual, commencing 1,000 years ago and continuing until the World War. During the last 250 years the desire of the rulers, who had been most influenced by western ideals, for a seaport which is not closed by ice has had an important influence on the extension of territory. Leningrad was closed by ice for 5 months of the year until strong ice breakers were invented, despite which it is closed 3 months, or more, on the average. In the effort to obtain a port at lower latitudes on the Baltic, the Russians were repulsed by a more geographically favored people, the Germans. Their repeated efforts to obtain Constantinople, which controls the outlet of the Black Sea, were rendered fruitless by Britain and Germany. Britain likewise has blocked desired expansion southward across Persia to the ice-free Persian Gulf, and Japan drove Russia from the desirable open Port Arthur on the Pacific Ocean, which was, however, too remote from most of the Russian people to be very valuable to them or to be effectively defended from attack.

During 1917 to 1921 large parts of the czars' domains became independent, but subsequently most of them have been brought back under the central government. The chief exception is the zone extending along the west from the Arctic to the Black Sea, divided among Finland, Estonia, Latvia, Lithuania, eastern Poland, and eastern Rumania (Bessarabia).

MAIN GEOGRAPHIC FEATURES

The Russian Plain.—Most of Russia is an almost featureless plain, with an average altitude of about 600 feet above sea level and a maximum altitude of 1,150 feet. The center is about latitude 57 degrees. It is nearly all farther north than Montreal. The winters are long, cold, and dark and the summers short and rather hot. Most of the plain is so flat that it is poorly drained, and, although the rainfall averages only about 16 inches, there is much marshy land. Furthermore, in spring much of even the better land is very muddy. As firm rock is generally lacking, the building of roads which are good during wet weather is very costly, and there are few such. During the long winter, however, the snow and frozen soil make firm roads nearly everywhere, for even southern Russia is continually snow covered for two or three months. The flatness of much of the plain is a result of one or more of three conditions: (1) its recent elevation from the sea; (2) the deposition of silt and loess in front of the ancient ice sheet; (3) the exposure by the melting away of the continental glacier, from an area of slight relief. The White, Caspian and

Black seas were united in recent geological times. But the uplift was very gentle, and the rock formations are practically horizontal, with, however, a slight western dip in the southern half of the country, as is well shown in the cross section at the bottom of the physiographic diagram. The only features of the relief are very broad and gentle swells and the narrow river valleys. The main water parting extends northeast to southwest and has an average elevation of about 800 feet above sea level. In the central and northern parts of the plain, the recently glaciated section, large rivers have cut relatively deep channels. Their tributaries, however, have not yet extended far enough to have roughened much of the adjacent land. Hence, the presence of even a major river is often not discernible until it is closely approached over the almost level plain. This sort of topography is characteristic of the geologically early or youthful stages of the erosian cycle on a plain and is represented in many parts of the world, but nowhere on a more extensive scale than in the North Eurasian Plain.

Its Northern Location.—In latitude Russia extends from 47° N (with minor extensions south of this) to beyond the Arctic Circle. Most of the people are found in latitudes 47 to 60 degrees. This well-inhabited area corresponds in latitude to the region from central Montana and Duluth northward almost to Great Slave Lake. Climatically these regions are similar also. But the North American area has probably less than one-third as much land at all suitable for agriculture and less than one twenty-fifth the population at present. The Canadian population, however, has many times the per capita wealth and purchasing power of the Russian, and the standard of living is very much higher, although the agricultural possibilities of the region are not nearly so completely utilized. The Russians could be equally well off if similar methods were used, and the population were reduced sufficiently.

Climatic Conditions.—Although the chief climatic characteristics of Russia have been presented in Chap. II (Climate and Climatic Regions) climatic conditions are such a prominent aspect of the Russian environment that a more detailed account is desirable.

A Continental Climate.—The prevailing winds are from the west, bearing from the Atlantic Ocean moisture and some equalizing influence on temperature. Most of the moisture is precipitated, however, before Russia is penetrated far, and the winds soon lose most of the tempering influence of the ocean. Hence central and, especially, eastern Russia have a strongly continental type of climate in contrast to that prevailing in the rest of Europe.

Temperature Conditions.—Moskva (Moscow) in the same latitude as Glasgow is 36° F. colder on the average in January but 7° warmer in July. East of Moskva the seasonal extremes are greater because of increased distance from the ocean. At Orenburg, near the south end

of the Ural Mountains in the latitude of London, the average temperature for the entire month of July is 63° higher than the average for January, and one recent July *averaged* 91° warmer than one January (78° and -13°). For London the average range between January and July is 24° and extreme range is 37° F. both of which are only two-fifths as great as at Orenburg.

In general the temperature decreases from south to north, and the seasonal extremes increase from west to east. The only port of Russia, however, which is not closed by ice for two months or longer is at the extreme northwest, Murmansk, on the Arctic Ocean, open because the ocean is there kept relatively warm by the Atlantic Drift from the southwest. In general the seasonal range of temperature increases most rapidly toward the southeast, with increased distance from the Atlantic Ocean. The northern quarter and more of Russia contains very few farmers, because the temperature is too low for most crops. A wide belt of northern Russia, the tundra, is characterized by the presence of ice in the soil the year round. In winter, temperatures far below zero are common, and the soil has been frozen to great depths. In summer only a few feet at the top are freed of the frost. The average annual temperature of Arkhangelsk on the White Sea is only 32° F., of Moskva 38°, and of Odessa, on the Black Sea, only 50°. Hence for the whole of Russia the average is distinctly low. Furthermore, the annual range is very great—for most places there is a difference of 130 to 140° F. between the lowest and highest temperatures recorded during an average year. Temperatures of 100° in summer are widespread as are temperatures of 30 or 40° below zero in winter. Moskva has had a range of 79° F. between the average temperatures of the entire months of January and Ju'y

Precipitation.—Precipitation decreases not only eastward but also southward and northward from the part of west central Russia nearest the southern Baltic Sea, where the annual average is about 24 inches. The decrease northward and northeastward is unimportant, as there the low temperatures largely prevent the growth of crops, and furthermore the lesser evaporation compensates for the decreased precipitation. Indeed, northern Russia is largely swampy, despite a precipitation of less than 10 inches a year. The decrease in precipitation southward is much more significant. The main agricultural region of Russia receives an average of less than 20 inches of rainfall and has frequent droughts which sharply reduce crop yields. The decreased rainfall toward the southeast, accompanied as it is with higher summer temperatures, is sufficient to render the area bordering the Caspian Sea practically a desert. The precipitation there is less than 10 inches a year. Bordering this area is a broad zone of semiarid land. Thus one-fifth of European Russia is so dry that few crops are grown and the population is scanty.

Furthermore, there are pronounced fluctuations of rainfall from year to year, and hence an area may be in the humid zone one year and in the semiarid the next.

Storms—Cyclonic disturbances are most frequent in summer but produce most storms in spring and fall, when they often are severe enough to resemble the blizzards of corresponding areas in North America.

Summary.—The main climatic characteristics of Russia are sharp seasonal contrasts of temperature, low average temperature, moderate but erratic summer rainfall, little precipitation in winter, nearly all of which is snow, and much cloudless weather.

RACIAL STOCKS

Since its separation from Poland, Finland, and the Baltic states of Latvia, Estonia, and Lithuania, soon after the revolution of 1917, European Russia is rather homogeneous racially. Two great Slavic stocks comprise nearly three-fourths of the people (Muscovites 53 per cent, Ukrainians 21 per cent). Jews and Germans, however, form important elements, the Jews being about 8 per cent. In addition there are numerous minor constituents. Of the Muscovites there are three chief subdivisions, the Great Russians, Little Russians, and White Russians. Most of the Little Russians live near the Dnepr, and the White Russians near the western Dvina. The Great Russians are most numerous near the Volga, but they have spread more widely than any other group (Fig. 260).

NATURAL REGIONS

Because of European Russia's extent of about 1,500 miles from north to south, and nearly as much from west to east, a number of natural regions may be recognized. These are characterized by considerable contrasts in climate, as we have just seen, and by differences in native vegetation, crops, soil, population density, occupation, accessibility, and advancement. Because of the levelness of the topography and the decided fluctuations of rainfall and temperature, the regions are bordered by wide transition belts. Indeed gradual transition is the rule. Hence the following accounts of the more conspicuous regions apply primarily to their more characteristic parts, which may be only a small share of the area assigned to the type in Fig. 260 or in the text.

The seven great belts of Russia in Europe have already been discussed somewhat in Chap. IV (Soil, Vegetation, and Agriculture) but require fuller treatment here.

The Tundra.—From the Arctic Ocean southward to about latitude 55 or 66 extends the tundra, characterized by small shrubs, herbs, scattered grasses, and especially by reindeer lichen. This zone is very sparsely peopled. Most of the inhabitants are nomadic Lapps and

Samoyeds who number less than three per square mile. Because of the climatic conditions, discussed in Chap. II (Climate and Climatic Regions), this zone exports very little and holds forth little promise of future development. Arkhangelsk, at the mouth of the northern Dvina River, on Beloe More (the White Sea) is of importance, though a small city. The port of Murmansk on the Arctic Ocean is not closed by ice, but it is of little importance because too remote from the settled and more active parts of Russia.

The Coniferous Forest.—The northern forest or coniferous zone extends from the tundra south to about the latitude of Leningrad (60° N.) Little land is cleared in this zone, and the population is small. Lumbering is being carried on increasingly in it, however, except toward the north near the treeless tundra, where the trees are too small. Much timber is rafted down the northern Dvina to Arkhangelsk, where it is sawed up or made into paper pulp and exported to Britain and other western markets. Many furs are likewise exported from this forest zone. Considerable oats and flax, for fiber, are grown on fields which are commonly abandoned to forest growth after a few years, because the crop yields decline rapidly.

As is true of forest soils in general, the soil is deficient in humus, but, because this section was recently glaciated, it usually contains abundant soluble minerals. The rocks are horizontal sedimentaries but are deeply buried by glacial drift, as in most of the northern two-thirds of the country. No sort of firm rock is exposed to view in most of Russia, even along the rivers. This is in sharp contrast to adjacent Finland, where granite outcrops are widespread. As elsewhere in the recently glaciated northern one-third of Russia, there are many lakes and marshes. The southern forest region and the northern part of the black earth region as far south as latitude 50 degrees were covered by an earlier advance of the ice but contain no lakes now. Because this region is nearly everywhere covered with glacial drift, the underlying deposits are known very imperfectly. As yet no minerals of any special value have been found. Furthermore the low level of the land, the long closure of the streams by ice, and the scanty precipitation make it unlikely that much water power will ever be obtained.

The chief feature of the landscape is the coniferous forest, a resource of present and future value, belonging to the state. In east central Russia there are said to be 400,000,000 acres of forest. Forest products are the major output of the eastern part of the forest belt, but the region is relatively remote and inaccessible from the chief Russian markets and especially from the great markets of western Europe. The areas near the rivers flowing to the more densely populated regions farther south or west in Russia were long ago cleared, and the facilities for getting out additional timber are poor. The outlet northward, down the Northern Dvina, is far better and is much used. In recent years timber, lumber,

and wood pulp have provided about one-ninth of the value of Russia's exports.

Experts have estimated that about 88 per cent of Russia's trees are conifers and 12 per cent are hardwoods, and that the annual growth is 12,000,000,000 cubic feet, or three times the estimate for the United States. The annual cut of about 7,000,000,000 cubic feet, of which saw timber makes up 4,000,000,000 and firewood 3,000,000,000 is, however, only about one-third that of the United States.

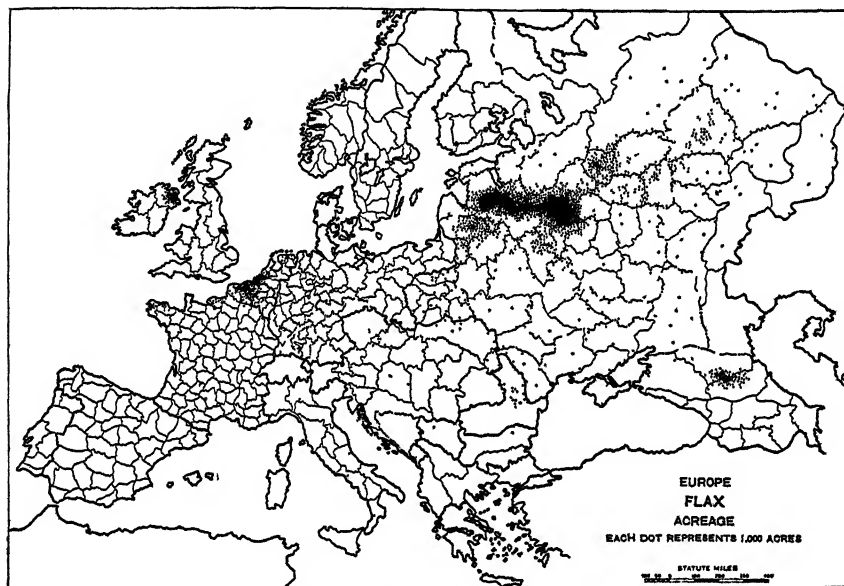


FIG. 261.—Flax acreage. (From Finch and Baker, U. S. Department of Agriculture)

In the northern forest the population is rather sparse, and most of the buildings are made of logs. There are numerous villages but no large cities.

Climate.—Climatically this region is near the border of the agricultural area, with long, cold, dark winters, and with summers which are too short for any but the more hardy crops. It suffers from cold rather than drought, however.

The Southern Woodland Zone.—Deciduous, broad-leaved trees, beech, oak, linden, etc., dominate the southern woodland zone, although pines are interspersed toward the north. This belt extends from about latitude 60 south to about 54 degrees. Trees have been largely cleared away in the southern and especially in the western part of this zone, which is very important agriculturally, being the great rye- and flax-growing region (Fig. 261). It also contains much of the industrial

activity of Russia, especially in and near Moskva, near the center of the western part. Because of the relatively large industrial population, this region does not produce enough food for its population, and much is shipped in from the adjacent region just south. From this belt, however, flax, butter, and eggs, as well as furs are exported. The population has been Muscovite since before the ninth century

The climatic conditions of Moskva and Leningrad have received considerable attention in the climatic section earlier in this chapter and that discussion can suffice.

The agricultural activities are discussed with those of the next region, the chief agricultural region, but here transportation facilities may be discussed, as the more important rivers all have their source in this region, and most of the railroads radiate from it.

Transportation Facilities.—About 16,000 miles of European Russia's rivers are navigated by steamboats, and there are some 1,400 miles of canals connecting the various rivers. Certain aspects of the rivers are favorable for their extensive use. The streams have gentle gradients and are relatively deep. Several of them flow out radially from so low and flat a divide that their headwaters have easily been connected by canals. From the almost indiscernible Valdai Hills, the western Dvina flows to the Baltic, the Volga to the Caspian, the Dnepr to the Black Sea. The Volga, the Don, and other rivers have been readily connected in their lower courses. It is said that it is possible to go to nearly all large sections of European Russia by boat. There are, however, several unfavorable features of the inland waterways. (a) They are all closed for 2 months or more by ice. Even Astrakhan, near the mouth of the Volga, is closed over 3 months, while Arkhangelsk, at the mouth of the northern Dvina, is free from considerable ice less than half the year. (b) The largest river, the Volga, which with its tributaries affords more than 7,000 miles of inland transportation, leads to the landlocked Caspian Sea. (c) The canal connecting it with the Don has been only a barge canal, but a ship canal is under construction. (d) The Dnepr, the principal waterway to the Black Sea, has, for 23 miles, a series of rapids, in the central part of the great eastern bend, caused by the outcrop of Russia's one great ridge of granite, which, however, is hidden elsewhere. The artificial channels intended to surmount these rapids have been quite inadequate. (e) The rivers are crooked. For example, the distance from Tver, at the head of steamboat navigation on the Volga, to the mouth of the river is 1,650 miles by the river but only 900 by direct line. (f) Low water in summer also interferes greatly with navigation, especially in southern Russia.

Although the waterways have long been the chief commercial highways, the tonnage of traffic shipped on them is small, some 3,500,000 metric tons in recent years. This means less than 70 pounds per capita

per year. Much of this is lumber, for about three-fifths of Russia's lumber is transported on rivers

The importance of the rivers is illustrated by the fact that nearly all the cities are located on them. For example, 8 of the 14 cities having a population of from 100,000 to about 200,000 lie on the Volga. From the head of navigation downward they are Tver, Yaroslavl, Nizhny-Novgorod, Kazan, Samara, Saratov, Stalingrad, and, on the delta, Astrakhan. Most of the river towns are on the right bank. On the Volga below Kazan there are said to be only 4 towns on the left bank as against more than 30 on the right. On the Dnepr and Don rivers a similar distribution of towns obtains. This is partly a result of the fact that the rock strata dip gently toward the west in southeastern Russia. This, and the deflective effect of the earth's rotation, cause the rivers to hug their right banks more than their left. Hence the right bank is higher and less subject to flood and has deeper water than has the left.

Railways.—European Russia has some 39,000 miles of railways, of which Ukraine has 7,041 miles, or twice its proportionate share, based on area. The distribution is shown conspicuously on Fig. 79 which reveals five chief features: (1) a large share of Russia is more than 10 miles from a railway; (2) lines radiate from Moskva, Leningrad, and the Donets coal field; (3) northern and eastern Russia have few railroads except for two almost straight lines to the White Sea port of Arkhangelsk and the Arctic port of Murmansk, and a line east from Leningrad to the Urals; (4) the region about the Caspian has no railroads except the two to Baku, one on either side of the Caucasus, and the one to Astrakhan at the mouth of the Volga; (5) there are fewer railroads near the Polish boundary than somewhat eastward, because of the Pinsk marshes and other sparsely settled tracts.

Airplanes —Aviation has commenced in Russia, somewhat more than 1,000,000 miles having been flown commercially in 1928, and 8,700 passengers carried. The larger cities are now all connected by airplane routes.

Russia reported only about 24,000 automobiles in 1930, a very low ratio to population (Fig. 84).

Distribution of Population.—About one-third of European Russia's approximately 120,000,000 people are found in the southern woodland zone. Leningrad, with about 1,666,000 people was long the chief city. It is located near the northern margin of the mixed forest, on the Neva River, the outlet of Lake Ladoga. This lake is the largest in Europe, and is near the Gulf of Finland. Leningrad (before 1917 called Petrograd or St. Petersburg after its founder) lost 500,000 people after the transfer of the capital to Moskva and the breakdown in railroad transportation following the revolution. But it is again Russia's chief port, especially for imports, and is larger than ever before.

Moskva, the capital of Russia before 1701, and also since the revolution, now has about 2,250,000 people. It lies on the Oka, a small tributary of the Volga, but railroads from a dozen radial directions afford most of the transportation. Four cities each with populations of 100,000 to about 200,000, lie on the Volga fairly near Moskva. Tver stands at the head of steamboat navigation northwest of Moskva, Yaroslavl lies northeast of Moskva, and Nizhny-Novgorod and Kazan due east. Two other modern industrial centers of similar size, Tula and Ivano-Voznesensk, are situated on railroads not far south and northeast of the capital city. The manufacture of textiles is especially important in the Moskva district, the cotton mills being unusually large, but woolen, linen, and silk mills are also important. The manufacture of machinery is of some significance.

The Prairie or Black Earth Region.—The fourth great belt of Russia is the famous Black Earth Belt, a grassy plain of great natural fertility. This black soil region covers about one-fifth of the country, but a considerable portion is in the steppe region, discussed below.

The black earth soil derived its color from the decay of the roots of its native grasses. Its fertility is partly due to this humus but largely to the fact that the fresh soil materials were blown from the area left bare by the melting of the continental glacier and the soluble minerals have not yet been leached out. Indeed, because of the rather scanty rainfall, they will long remain in the soil (see Soils in Chap. IV). The black earth soil corresponds to the loess of western Iowa and eastern Nebraska, and is fine, porous, and deep.

The natural fertility of the black earth belt is so great that when rainfall is sufficient, plant growth is rank. For example, hemp occasionally attains a height of 20 feet. Crop growing is the major activity of this belt, although because it contains the chief coal field and considerable water power, it has recently acquired a sizable industrial population. Most of Russia's large prewar export of grains and flour came from this region, nine-tenths being from Ukraine.

Climate.—Climatically this is the best large region of Russia, as there is sufficient warmth and moisture for extensive agriculture, and yet the summer heat is seldom intense enough to be enervating, as it often is in the southeastern part of the country. The winter cold is, likewise, less severe than in any other Russian region, except the tiny Mediterranean one. It is, however, prolonged and benumbing, field work being stopped by it for three months, on the average. In respect to rainfall, this region is less fortunate than the southern woodland, because of the lower average amount and especially because of its greater fluctuation. Moreover, as a result of higher temperatures, more moisture is required than in the woodland zone, not less. In the main part of the prairie region, however, the rainfall is sufficient so that there is almost never a

complete crop failure, although often the yields are reduced pitifully by drought.

Precise figures for the January and July temperature and precipitation and the annual averages are given for Odessa, at the south, in the appendix, and for Saratov at the east in Table I of Chap II. The discussion of climatic conditions at Moskva, not far from the northern border of the region, as well as the more general statements concerning the climate in the earlier part of this chapter and in Chaps. II and IV should make the main features rather clear

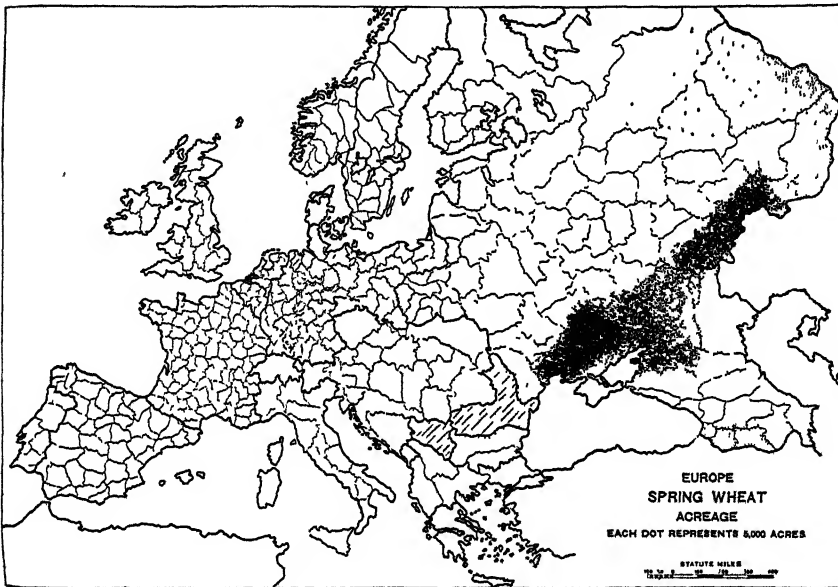


FIG. 262.—Spring wheat acreage, prewar. (From Finch and Baker, *Geography of World Agriculture*, U S Department of Agriculture)

Agriculture.—Most of the Russian people are farmers, indeed about 80 per cent are agricultural peasants. The area devoted to crops is greater than the combined total area of France, Germany, Britain, and Italy. Because of the vast acreage and despite the low average yield per acre, Russia in recent years (1926 to 1929) has produced about one-third of Europe's wheat, corn, oats, and barley, and more than one-half of the rye. Of the estimated total output of the entire world, excluding China, for which there are no adequate estimates, European Russia now produces about three-fifths of the flax fiber, one-half of the rye, one-fifth of the wheat and oats, one-sixth of the flaxseed, one-eighth of the barley and one-tenth of the tobacco. This is despite the fact that European Russia has only about one-thirteenth of the world's population (China

excepted), has a rather unfavorable climate for agriculture, and uses, for the most part, poor agricultural methods.

The dominant agricultural region of Russia is the triangular area with Leningrad just beyond the northern corner, Odessa at the southern, and Samara on the middle Volga near the eastern corner. According to Russian authorities this area is so densely occupied as to be overpopulated and therefore any large net export of food from it is no longer to be expected. Hence the chief efforts of the Soviet Central Government to obtain grain for export are being made in the more sparsely populated region to the southeast.

The acreage of the chief crops, their production, and their yield per acre averaged approximately as follows from 1925 to 1928, inclusive:

Crop	Millions of acres	Millions of bushels	Bushels per acre	Crop	Millions of acres	Millions of tons or pounds
Wheat	70	800	11 5	Sugar beets	2	8 tons
Rye	68	900	12	Flax	4 3	
Barley	17	240	15	Hemp	2 3	1,000 lb
Oats	41	1,000	25	Millet	12	8,000 lb
Corn	8	140	16	Sunflowers	7	4,000 lb.
Potatoes	14	1,800	128			

Localization of Crops.—The sections of Russia in which the several chief crops are most extensively grown are shown in Figs 261 to 263; they are, briefly as follows: rye, the most northern section extensively farmed, especially east of Moskva; flax, northwest and west of Moskva (Fig. 261); barley, just north of the Black Sea (Fig. 263); spring wheat, just north of the Black Sea from west central Ukraine to the Don and also just west of the southern Urals (Fig. 262), winter wheat (much less widespread), chiefly east of the Sea of Azov (Fig. 173); corn, near the Black Sea and just north and south of the Caucasus Mountains (Fig. 256); sunflowers, near the drier margin of the tilled area in southeast Russia; potatoes, in west and northwest central Russia (Fig. 252), sugar beets, strongly localized in central Ukraine (Fig. 193); tobacco, localized near Kiev.

The chief farm animals with their approximate average number during 1926 to 1928, were sheep, 120,000,000, cattle 60,000,000, horses 30,000,000, swine 20,000,000, and goats 10,000,000. Of the world's horses, European Russia has about one-sixth and of the cattle and swine about one-tenth.

Cattle are distributed evenly over the southern half of European Russia, but decrease gradually northward until they are lacking in the tundra. Sheep and goats are most numerous in the southeast, in

the drier section (Fig. 314). Swine decrease gradually in all directions from west central Russia, and are lacking in the north and almost so in the southeast and east (Fig 196).

Mineral Resources.—In addition to being the best agricultural section, the prairie or black earth region is richest in mineral wealth, the chief item of which is coal. The Donets field, near the lower course of the Don River in eastern Ukraine, has an area of some 16,000 square miles. In some places as many as 40 seams are considered workable. In recent years more than 80 per cent of Russia's coal has come from this field, which also yields the only coking coal. The Tula or Moskva

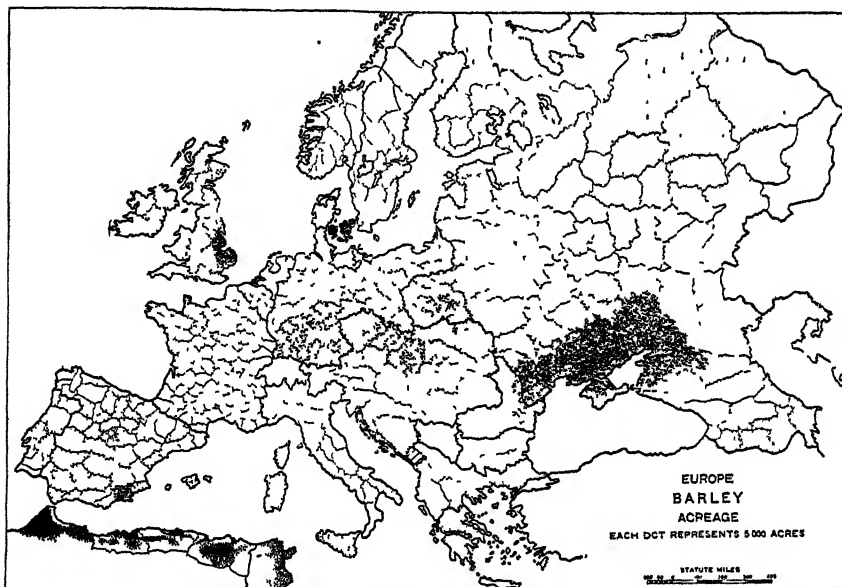


FIG. 263.—Barley acreage. (From Finch and Baker, U. S. Department of Agriculture)

field and small fields in the Caucasus contain low-grade coal of little present importance. Despite the urgent need for domestic fuel in winter, little coal has been mined in Russia. Less than 1,000,000 tons were mined in 1885 and only about 16,000,000 tons in 1925, but the production rose to 35,000,000 tons in 1927–1928. Iron ores of low quality are found in several places and some high grade ore in Krovirog. About 70 per cent of the output comes from Ukraine, but the total is small. In 1928 it made up only 3 per cent of the world's total. In that year 3,400,000 tons of pig iron were made, and, as a by-product, about 2 per cent of the world's phosphate fertilizer. Considerable manganese is obtained from Ukraine.

Industrial Activity.—In recent years the industries of eastern Ukraine have increased conspicuously. This has occurred chiefly near the Donets

coal field and in the adjacent area served by the hydroelectric development of Dnepropetrovsk at the rapids of the Dnepr, where the ultimate capacity will be about 455,000 horsepower. Ukraine with about one-eleventh of the area and one-fourth of the population of Russia has recently produced four-fifths of the coal, 70 per cent of the pig iron, 85 per cent of the sugar, 70 per cent of the agricultural machinery, and a large share of the flour. The value of the output of all Russian factories in 1927 equaled that of 1913, and in 1929 it exceeded the 1913 figure by about one-fourth. In that year the output had a value of about \$500,000,000 dollars, or about the output of the individual city of Minneapolis or Akron, or one-fourth that of Philadelphia.

Urban Centers.—Prairie or black earth Russia is densely populated, the west central part having, as we saw in Chap. VII (*The Distribution of Population*), more than 250 persons per square mile. Ukraine averages 172. This region contains most of the large cities of Russia aside from the seven mentioned in the southern woodland region and a few in the steppe region. The chief are Kiev, Odessa, and Kharkov, with populations of from 400,000 to 500,000, Rostov with about 300,000, Dnepropetrovsk with about 250,000, and three with from 100,000 to 200,000, Stalin (Yuzovka), Voronezh and Nikolaev. Rostov is near the mouth of the Don and the coastal port of Taganrog is near by, while Voronezh is higher up the river. Kharkov lies on the Donets, a tributary of the Don, and Stalin is on a smaller river near by. Kiev, one of the capitals of Ukraine, and for centuries a leading city of the black earth belt, is situated on the Dnepr, as are Dnepropetrovsk and Kherson. The latter is an important port at the mouth of the river. Near by on the coast of the Black Sea are Odessa, long the chief port of southern Russia, and Nikolaev, which recently has surpassed Odessa. It is now one of the capitals of Ukraine and also manufactures considerable steel.

The Steppe.—Southeast of prairie Russia the rainfall becomes progressively less abundant and more erratic, with the result that tall prairie grasses give place to short grasses or to scattered bunch grasses. Lakewise in the drier sections the black soil is replaced by lighter colored soils, as the amount of humus decreases. This dry steppe belt is largely given over to stock raising, and contains more sheep and cattle than any other large section. Farmers, however, have been venturing eastward decade by decade, with the result that more and more are subject to the highly erratic rainfall characteristic of semiarid regions. Very low average crop yields result, despite the fertility of the soil. Of the small area in crops, barley and sunflowers occupy most, except on the government farms where winter wheat is chiefly grown. Indeed the chief winter wheat area is the southern part of this region. The main expansion of agriculture which the Soviet Central Government has been strenuously attempting since 1924, with the help of numerous tractors and other

labor-saving machinery, has taken place in this region, where increased aridity has kept the population down to less than 20 per square mile, but where the soil is relatively fertile and large areas are physically adapted to tillage by extensive methods. Indeed such large-scale methods employed by large organizations, which cannot be bankrupted by the frequent crop failures, are entirely logical in such a climate. Thus any expansion of agriculture which the Soviet Government is able to make in that region is largely a net gain. Most of the region was not, and could not be, farmed by the small-scale methods prevalent in most of the country.

Urban Centers.—Despite the generally sparse population of this region it has two cities with populations of from 100,000 to 200,000, Saratov and Stalingrad (Tsaritsyn), both on the Volga.

Mediterranean Russia.—A narrow fringe of forest of the Mediterranean type is found on the south side of the coastal mountain range on the Krim (Crimean) Peninsula, and in the Caucasus Mountains. This zone was settled by Mediterranean peoples during the age of ancient Greece, and they have not all been displaced. Winter wheat and corn are important crops. The chief city is Akhmar (Sevastopol). Southern Krim is rather important as a Russian health resort, especially in winter.

Desert Russia.—The seventh great vegetal type of European Russia is the desert bordering the northern part of the Caspian Sea, particularly in the considerable area below sea level. Because of receiving less than 10 inches of precipitation on the average and often much less than that, and having hot summers, it is practically a desert. Hence it is characterized by saline and drought-resistant shrubs, scattered salty herbs, and either coarse or else very ephemeral grasses. The only significant city in this region is Astrakan, on the delta of the Volga, population about 150,000. It is maintained partly by the commerce on the Volga and partly by the fisheries in the vicinity of which fishing for caviar (sturgeon's eggs) is of especial interest, because of the comparatively large export of this delicacy.

Mountainous Russia.—The eastern and extreme southern sides of European Russia are bordered by the Ural and Caucasus mountains, the physiographic characteristics of which are well suggested on the physiographic diagram in the pocket. The Urals are a low range with summits generally not over 3,000 feet high. They are not rugged and are densely forested, sparsely populated, and of little present importance, except toward the south where gold and platinum are mined. The Caucasus Range, however, is quite rugged and is loftier than the Alps. It still contains glaciers but affords little mineral wealth. The Dariel Pass across the middle of the range leads to Tiflis (population about 300,000), the capital of the Transcaucasian Soviet Republic.

Mineral Resources.—The Urals have produced some gold, and before the World War produced over nine-tenths of the world's platinum, largely from their eastern, Asiatic side. They now produce less than one-half. The Apsheronskii, or Baku Peninsula, which projects eastward into the Caspian Sea, produced enough petroleum from 1860 to 1917 to give Russia second place among the nations in oil production. Since 1917 Russia has ranked third. The output for 1927 to 1929 averaged 13,000,000 tons (86,000,000 barrels in 1928), two-thirds from Baku and one-third from near-by Grosnyi. In 1930 petroleum was discovered in considerable quantities, apparently, just west of the southern Urals also. Before the war about one-half of the world's manganese was

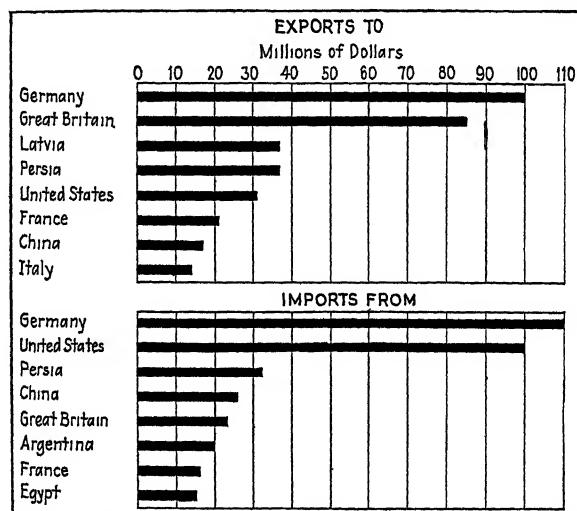


FIG. 264 —Russia's foreign trade, average 1927 to 1929, by countries and values to each.

produced near Kutais, in the southern foothills of the Caucasus. Baku (population about 450,000) is connected with the port of Batum, at the east end of the Black Sea, by two oil pipe lines some 500 miles long and a railroad. Krasnodar (Ekaterinodar), population about 120,000, is on the Kuban River near the Black Sea, just north of the Caucasus.

RUSSIAN COMMERCE

The per capita foreign trade of Russia, as in most very large countries, is relatively smaller than that of lesser countries. This is because most of the necessities of life can be obtained within the borders of the country. The poverty of most Russians likewise reduces imports, as do the high tariffs (Fig. 135) and other governmental restrictions, and the relative remoteness of most of the people from convenient sources of imports. Exports are small chiefly because the remoteness of most of Russia from

foreign markets, and the unsatisfactory transportation facilities thence absorb most of the profits which would normally be obtained from exports. Furthermore, Russian methods of production have been less efficient than those in many other areas.

Agricultural products formerly comprised more than 60 per cent of Russia's exports by value, but from 1927 to 1929 they comprised less than 25 per cent. The chief items in recent years and their average approximate value were eggs \$20,000,000, butter \$19,000,000, grains \$16,000,000, flax and tow \$14,000,000, and meat \$12,000,000. Although in recent years the powerful central government has endeavored strenu-

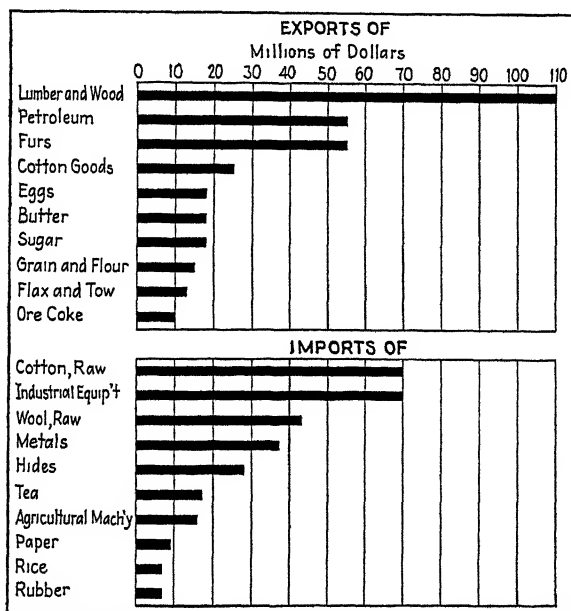


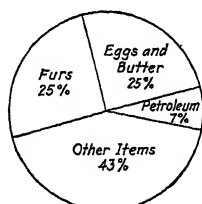
FIG. 265 — Chief Russian exports and imports, average of 1927 to 1929, by items.

ously to increase exports, they have had little success except in respect to products such as furs, lumber, platinum, and petroleum in which the world's demands can not readily be supplied by more favored and advanced nations.

For 1926 to 1929 the exports had an average value of about \$400,000,000 and the imports of about \$450,000,000. Thus the per capita trade was only \$7 or about one-tenth of that of the United States. The bulk of the imports was composed of raw materials and semimanufactured products, about 54 per cent, while manufactures formed 35 per cent and foodstuffs 9 per cent. The principal imports with their average value are shown in Fig. 265. Russia's imports are mostly from a few countries, about one-fourth coming from Germany and nearly one-fourth from

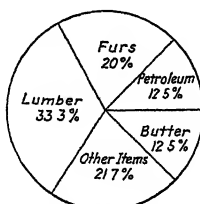
the United States. The values from the leading countries are shown in Figs. 270, 273.

The exports for 1927 to 1929 were chiefly raw and semifinished materials, about 60 per cent, and foodstuffs 30 per cent. Because of the great decline in foodstuffs exported, the total value of exports recently has been only about one-half as great as in 1913. The chief exports and their approximate average values are shown in Figs. 265, 266-269.



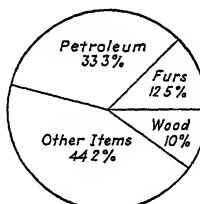
GERMANY

FIG 266



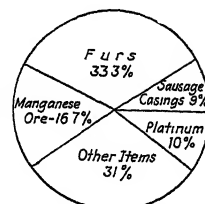
GREAT BRITAIN

FIG 267



FRANCE

FIG 268



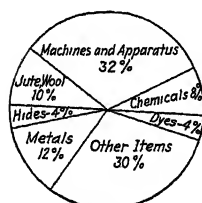
UNITED STATES

FIG 269.

Figs 266 to 269—Chief Russian exports to leading countries, average of 1927 to 1929

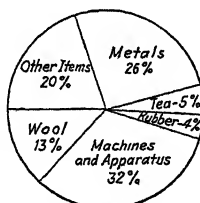
Of Russia's exports, England and Germany each take about one-fourth. The leading countries and the values are shown in Fig. 264. Doubtless a considerable share of those received by Latvia were reexported via Riga.

The chief items exported to and imported from each of these chief importing nations, with the approximate portion which they comprise of the total sent to or received from that country, are shown in Figs. 266, 269.



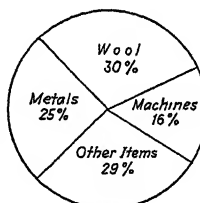
GERMANY

FIG. 270.



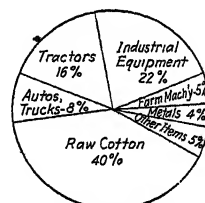
GREAT BRITAIN

FIG. 271



FRANCE

FIG 272



UNITED STATES

FIG 273

Figs 270 to 273—Chief Russian imports from leading countries, average of 1927 to 1929.

Russia in Europe received an average of 1.1 per cent of the exports of the United States in 1910 to 1914 and 1.4 per cent in 1927 to 1929. Russia furnished 1.1 per cent of America's imports in 1910 to 1914 but only 0.3 per cent in 1927 to 1929.

SUMMARY

The chief characteristics of European Russia are (1) the vastness, (2) the levelness, and (3) the continuity of the area, (4) the lack of distinct

natural boundaries, (5) the high latitude, (6) severe climate of most of the land, (7) the greater suitability of the land for agriculture than for anything else, (8) the relative isolation of all but a small fraction of the people, (9) the comparative monotony of conditions, and (10) their cultural distinctiveness, of which the present socialistic government is an example. The fact that about four-fifths of the people are classed as rural and live in farm villages is one of the striking characteristics. Most of these villages are rather small, with a population of 200 to 500, but some reach a few thousand. There are, moreover, only 22 cities of over 100,000 in European Russia compared with 93 in the United States, which has approximately the same total population. Russia has only 2 cities of over 500,000, in contrast with 20 in the United States.

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C. SOUTHERN EUROPE

CHAPTER XXIII

SPAIN AND PORTUGAL

Changes in the Geography.—Spain and Portugal (Fig 274) have been so prominent in the past but are of such little concern to most of Europe now, that it is worth while to examine the geographic conditions to see to what extent they may help to explain the radical changes which have occurred

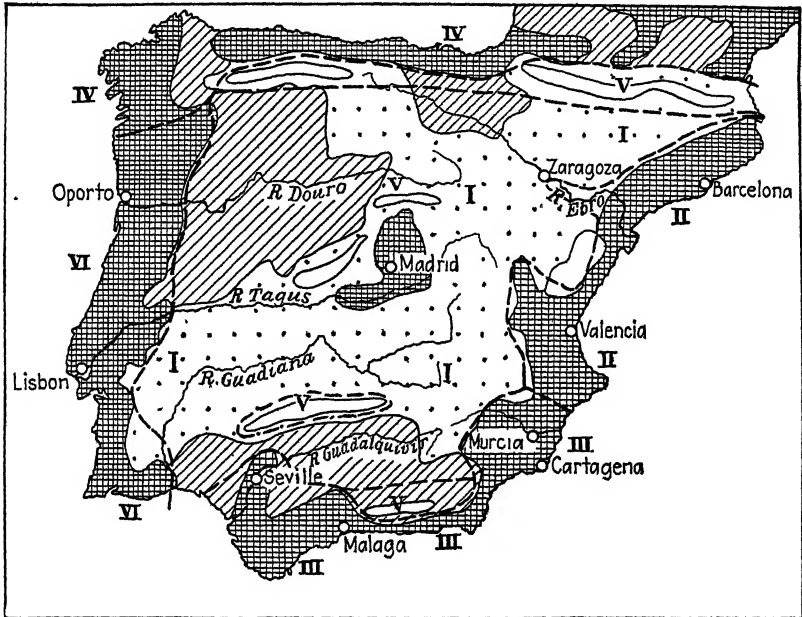


FIG 274—Iberia, density of population and natural regions, crossed dense, over 125 per square mile; stippled, less than 60 Regions, I Plateau, II Catalonia, III Granada, IV Humid Iberia, V Mountains, VI Portuguese Iberia

The Iberian Peninsula was an important source of metals for the Phoenicians, several hundred years B. C., a leading outpost of Rome, and for several centuries, when controlled by the Moslem Moors, it attained to a splendor of civilization not then possessed by the rest of Europe. Following the expulsion of the Moslems came the era of exploration largely inaugurated by Columbus' discovery of the New

World For nearly two centuries thereafter the Iberian Peninsula contained the most prominent nations of the world, with the largest areas under their control that any countries had. During the last century, however, Iberia has sunk to almost insignificance from the world point of view. Why?

It is often assumed that the geography of an area remains the same. How false this assumption may be is illustrated by Iberia, in respect to which there have been several very significant changes

Harbor Deterioration.—The harbors of Iberia have deteriorated greatly. There were many good harbors and the larger rivers could be ascended some distance a century and a half ago, when ships were small. But now Iberia has almost no good harbors, except Barcelona, which is almost entirely artificial, and Lisboa (Lisbon), and is decidedly worse off than formerly, as compared with many other countries. This change is partly due to the fact that several formerly important harbors are shallower than they were, because of having been silted up by rivers or blocked by wave-built bars. Of much greater significance is the general increase in the size of boats which has accompanied the use of steel and the great growth in the volume of commerce. When spices, precious metals, gems, and silks formed the chief items of commerce, small ships sufficed, but now that vast quantities of bulky commodities are carried, large ships are needed.

Declining Value of Minerals.—Although Iberia was an important source of minerals and was considered especially rich in mineral wealth until recently, it is now almost insignificant as a source, present or prospective. This is partly because of the exhaustion of certain mines, but more largely because of changes elsewhere. The world demand for minerals has grown to be so great that only of mercury and pyrite does Iberia now supply an appreciable fraction. Copper is a good illustration. Spain long supplied a large share of the world's output and was considered to be perhaps the most fortunate part of the world so far as copper was concerned. But the development elsewhere of improved methods of recovery and the opening of new mines in other lands where the cheaper methods can be used to better advantage has resulted in Spain no longer having any real significance as a source of copper. Of iron ore Spain exported from 6,000,000 to 10,000,000 tons of high-grade Bessemer ore for the years 1910 to 1917, and produced 6 per cent of the world output of iron ore in 1913, but the supply of this rich ore is approaching exhaustion and Spain presumably will soon decline almost to insignificance in respect to iron ore production also. In 1929 less than 1,000,000 tons were exported.

In coal, likewise, Spain's position has changed sharply. Until recently it was credited with having considerable quantities, and therefore having potentialities from an industrial standpoint. Iberia is now

considered to have only a very small amount of coal as compared with the more favored nations. Spain is placed in the fourth class on the basis of the data in the authentic "Coal Resources of the World" while Portugal, Italy, Scandinavia, and most of Africa and South America are placed in the fifth or last class. The United States, Canada, and China make up the first class, Britain and Germany the second class, while most of the European countries fall into the third class. Thus Spain is put in the next to the lowest class and Portugal in the lowest. The current output of 6,000,000 or 7,000,000 tons certainly is almost a negligible fraction of the world's total. Thus the explanation that Iberia (and the Mediterranean countries in general) have declined relatively because of the rise of nations with better coal deposits can no longer be said to be disproved by Spain, which was formerly given as an example of a country which had much good coal which was unused. It therefore appears that the decline Iberia has experienced during the last

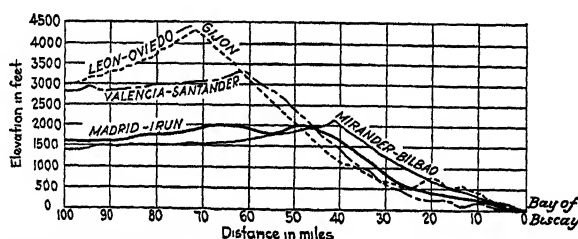


FIG 275 —Profiles of railroads from the north coast of Spain to the interior, showing the steep grades

century and a half is partly due to changes in the value of its mineral resources.

Relief an Increasing Handicap.—Of probably greater significance in explaining the increased isolation of Iberia and its lessened world influence are the changes which have taken place in the influence of its topography. When land transportation was everywhere by pack animals, steep slopes were relatively unimportant, for all travel was slow and laborious. Then Spain and Portugal were not much worse off than other countries. Indeed the firmness of most of the roadbeds, in part due to the general scarcity of rainfall and in part to the abundance of rock for road making, made travel about Spain by the methods then in use easier than in wetter lands, especially in muddy plains which lacked stone for road metal. With the coming of railroads, however, Iberia was at once greatly handicapped, relatively, by the fact that at only a few points can a railroad readily ascend onto the plateau from the coast, because the slopes are so steep that the drive wheels of the locomotives spin. Even where they can ascend, the grades are steep (Fig. 275). Nor can railroads readily unite coastal communities because the mountains reach the sea, as is clearly shown in the physiographic diagram in the pocket. In

contrast with Iberia, railroad building and operation is easy in the North European Plain, and in many other parts of the world. The geography of Iberia has changed, therefore, in another important particular, with the result that it has been harder for the people to keep up with the advance of better favored lands.

Trade Routes Less Favorable.—Another great change has occurred in Iberia's location in respect to the great trade routes. It formerly was very favorably situated for trade and was a leading commercial region. This was when much of the trade of the world was by small boats between the Mediterranean lands and northern Europe, between Europe and the Orient around Africa, or between Europe and America with the westward-going ships sailing with the trade winds. But now that a considerable share of the commerce between northern and southern Europe is carried by rail, and most of the rest by ships too large to be interested in stopping in Spain, and since most of the traffic across the Atlantic follows the northern route, Iberia's situation is far less favorable, relatively.

Agriculture Unable to Meet Severe Competition—In respect to several agricultural products, also, Iberia has suffered a geographic change of an unfortunate type. For centuries it was one of the best places in the world for the production of high-grade wool from its famous merino sheep. But since the extensive building of railroads in other parts of the world, such vast areas suitable for wool production have yielded wool for export that Iberian wool is no longer important to other countries. Similarly, Spain formerly exported grain, but no longer can compete with more favored areas. In oranges it has been less handicapped, but the development of California has broken the monopoly Spain formerly had in the European market, although it still supplies about 64 per cent of the worlds' export.

Thus in several respects Iberia has experienced changes of a geographic sort which have contributed to her being surpassed by regions which have greater geographic advantages.

Human Factors.—In addition to the foregoing changes in environmental conditions, for which little blame need be laid on the people of Iberia and which have clearly contributed to their decreased importance in the world of affairs, various other conditions have helped bring about the decline. It has often been stated that the Spanish Inquisition was a major cause of the decline, for by it many of the more progressive people were killed or driven out. The loss of "the flower of Spain" on the Spanish Armada also contributed to a racial deterioration, but of much greater significance than the last was the emigration to the colonies, generation after generation, of ambitious young men who never came back. Another unfortunate result of the colonies was accentuated by a wrong fiscal policy. The large inflow of gold and silver were held so far

as possible in Iberia, with the result that prices were inflated there and exportation of commodities to other countries rendered so difficult as to seriously check trade.

Another explanation of the decline which has been offered is that with the growth in power of the Roman Catholic Church more and more of the rich lands became church property and no longer paid taxes or supported a strong middle class. At the same time an increasing share of the educational program came under the control of the church, which has been characteristically conservative. Furthermore, a considerable number of the more capable people became childless priests or nuns.

It is obviously impossible to correctly evaluate the relative importance, in explaining the lessened influence of Iberia, of the deterioration in environmental conditions sketched above and of the unwise legislation and social conditions just mentioned, but with these geographic and social changes in mind we are in a position to consider modern Iberia with a more sympathetic attitude.

GENERAL CHARACTERISTICS

Spain and Portugal commonly are grouped with the Mediterranean countries, although Portugal lacks 150 miles of touching the Mediterranean. This is done because in several conspicuous respects Iberia resembles other Mediterranean lands. Its languages are Romance and its religion is Roman Catholic; most of its peoples belong to the Mediterranean subrace and live similarly in villages, not on farmsteads. Most of Iberia carries on the type of agriculture widespread on the Mediterranean, the growth of winter cereals, of fruits, especially the vine and olive (Fig. 279), and grazing, particularly sheep, goats, and asses. The type of agriculture is in response to the dry hot summers and the relatively rainy winters, which prevail except along the north coast. The winters, however, are much colder on the plateau than in the Mediterranean lands generally, which interferes with winter cereals and especially with the characteristic Mediterranean flora. Indeed the latter is found in less than one-third of the area, for it is lacking also on the north coast where the rainfall is abundant enough the year round to permit the growth of the type of vegetation approaching that found in northern France and southern Britain.

Climate.—Although the sea forms seven-eighths of the periphery of the Iberian Peninsula, and the land area is small (125,000 square miles) the climate is distinctly continental in type, in response to an average altitude of about 2,200 feet and a latitude of 37 to 43 degrees. Its latitude insures considerable differences in the height of sun and the length of day in summer and winter. Its latitude is also such, in connection with its relation to Africa, that in summer it is crossed by the high-pressure calm belt, between the belts of the trade winds and westerlies. The nor-

mal dryness of this calm belt is favorable to high temperatures. As a result of these conditions and the fact that the sea is practically everywhere bordered by steep slopes of lofty mountains, or by the abrupt margin of the plateau, moisture and the tempering influence of the ocean are seldom carried far inland by the winds. Madrid, near the exact center of the peninsula, has a January mean temperature of only 40° F. but a July mean of 77°, and frequently has temperatures above 100° F. in summer and below 20° in winter. In contrast, Lisboa (Lisbon), on the coast, has averages of 50 and 70°. Madrid receives an average of only 16 inches of precipitation, of which less than 1 inch falls in July and August together. Lisboa receives 29 inches but only $\frac{1}{2}$ inch in July and August.

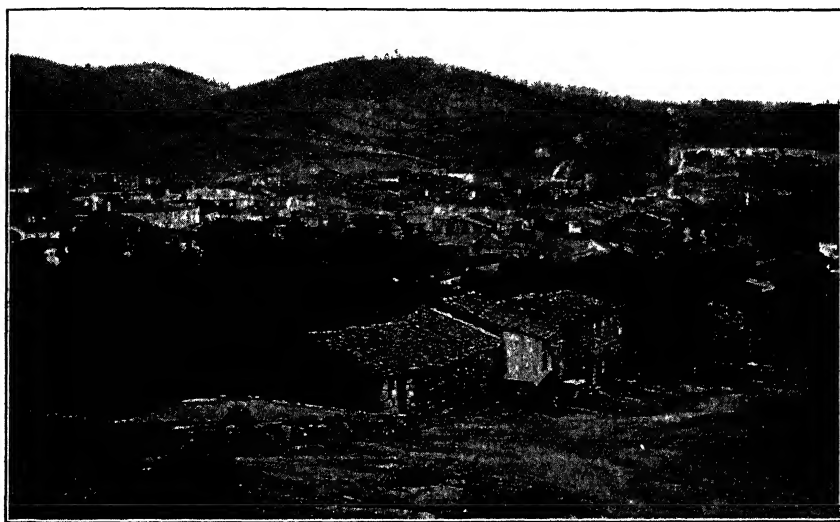


FIG 276 —A representative Iberian village.

The fact that Madrid receives slightly more rainfall than Lisboa in summer reflects its continentality, also, as one of the characteristics of continental climates is that they receive more precipitation in summer than do coastal areas in similar latitudes.

Geographic Separation.—The Iberian Peninsula is the most distinct part of the continent. It is almost completely separated from the rest by the lofty and rugged Pyrenees which are the harder to cross because of their compact longitudinal folds, and which closely approach the sea at both ends. Until 1928 no railroad crossed the Pyrenees, and the traffic across them remains small because the grades are steep. Traffic on the railroads which hug the coasts at their ends is also small. Hence most of the trade with other countries is by boat. The effectiveness of the Pyrenees barrier is sufficient to have given rise to the French saying that

"Africa begins at the Pyrenees." Certainly it is true that the Pyrenees have been a more difficult barrier than has the Strait of Gibraltar which is only 9 miles wide

Harbors.—Despite the relatively long coast line, Iberia has very few good harbors and fewer good ports, as connection between the interior and the coast is difficult nearly everywhere. Because of the prevailingly scanty precipitation in the interior and the rapid evaporation most of the year, relatively few rivers extend from the interior to the coast. Only the largest of these have cut valleys with gentle enough gradients to make them feasible routes for railroads. Because of their steep gradients, all the rivers carry so much sediment when they do flow that deposition at and near their mouths clogs their channels. This renders them unsuitable for the entry of large ships, and as consequence none of the ports is at mouths of rivers, although Lisboa and Porto are on estuaries.



FIG. 277 —Looking across San Pedro de Premia, Spain, showing fields and olive trees.

Natural Regions.—Iberia possesses six major regions (Fig. 274).

1. *The Plateau.*—Five-sixths of Spain is a plateau known as the *meseta*, averaging about 2,600 feet in height, nearly surrounded by mountains along the coast (see the physiographic diagram) but largely made up of wide interior basins which lie between scores of almost barren mountain ranges. Few localities are not within sight of one or more rugged ranges. Most of the mountains, however, have long gentle slopes which extend for miles from their base. These gentle slopes lead to stream valleys or to lake beds called *playas*. Upon the long slopes stretch fields or pastures, which, during all the year except springtime, look too dry to yield even a small crop of wheat or grass. Here and there orchards of dwarfed gnarled olive trees only slightly reduce the impression of almost hopeless aridity. Every few miles there is a drab village of adobe brick. Towering above the low, commonly flat-roofed houses of all

but the smallest villages is the cathedral, which is usually quite picturesque from a distance (Figs. 276, 277). Between the villages there are almost no houses nor roads nor even fences. The average density of population on the plateau is slight for Europe, as most of the people of Iberia live on the periphery of the peninsula. If Madrid, which owes its size to being the capital and the commercial center of Spain, be excluded, the rest of the plateau has an average density of population of less than 50 per square mile.

The great interior of Spain with its scant rainfall of from 8 to 18 inches per year, almost all of which falls in the cool winter season, is in general quite similar except for the contrast between mountain, plain, and the little strips of irrigated land along the flood plains of the few

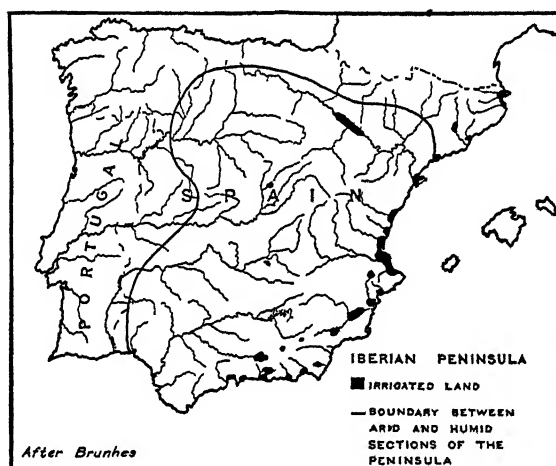


FIG 278 —Chief tracts of irrigated land The water is mostly diverted from rivers fed by mountain streams

rivers (Fig 278) It has, however, an average elevation of 2,700 feet in its northern half in contrast with 2,600 feet in its southern, and the southern part is hotter because of its lower latitude also, and hence distinctly more arid. Some sections of it are almost without population.

2. *The narrow eastern coastal strip* along the Mediterranean with irrigated deltas and flood plains contains many more people than the plateau, although it is much smaller. The flood plain of one of Spain's two large rivers, the Ebro, extends this province inland as a narrow strip 100 miles to Zaragoza and affords perhaps the best route to ascend onto the steep-sided plateau. This region has long been rather distinct from the plateau, and Catalanian is spoken commonly instead of the Castilian of the plateau. Barcelona and Valencia are the chief ports of this region. This region is extensively irrigated, especially toward the south, and

produces a great variety of crops. Oranges are especially important near Valencia (Figs 280, 281).

3. *Southern Spain* or Andalusia, with its wide river valleys, chief of which is the Guadalquivir, which extends nearly 150 miles to Cordoba, and narrow coastal plains is especially accessible from Africa and was the last European stronghold of the Moors. Granada, Seville, Malaga, Murcia, and Cadiz are famous cities in this section. No other part of Europe has warmer winters than some parts of this area, and its summers are very hot. Hence its products include oranges, lemons, sugar cane, bananas, cotton, and some other subtropical crops, nearly all grown by irrigation (Fig. 278). Even the date palm ripens its fruit locally on the south coast of Spain, where the January temperature is above 55°, the only part of Europe where it will do so. Considerable rice is also grown in this region, especially near Valencia.

4. *Humid Iberia* comprises the northern slopes and the western end of the Cantabrian Mountains in northern Spain and Portugal. This

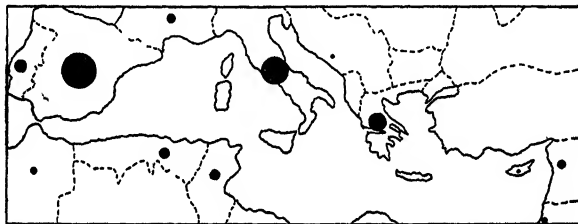


FIG. 279 —Olive oil production, average of 1921 to 1925 Iberia produced about 55 per cent, 88,000,000 gallons

small section receives an abundance of rainfall, locally as much as 60 inches a year. Irrigation is unnecessary, and the slopes are green throughout the year, in sharp contrast to the somber colors which usually prevail elsewhere in Iberia (Fig. 282). Corn is the chief crop, which thrives because considerable rain is received during the warm summer. No other portion of Europe has so large a proportion of its area in corn as northwestern Portugal and adjacent Spanish Galicia. The grape is not extensively grown and the cork oak is almost lacking. The population is comparatively dense in this favored region, an average of about 170 per square mile (Fig. 274). This region, especially the western part at the northwest corner of the peninsula, is where most of the fishing is done for sardines. In a recent year 130,000 men were employed in the fishing industry there. There are several fair harbors in this general region but the closeness of the mountains to the sea, and their height, greatly interfere with trade with the interior. (See Fig. 275, the profiles of railway lines.) Thus the area served by each is small, and there are no large cities despite the relatively dense population. Bilbao (population 150,000) is the largest.

5. *Mountainous Iberia*.—A fifth geographic type is made up of the numerous mountain ranges. Most of them are rugged and almost barren and comprise much of the more than one-third of Iberia which is practically unproductive (Fig. 82). The mountains yield minerals, however, and supply water for irrigation and water power. Obviously they act as barriers to travel from place to place. The only ranges which are extensively forested are those along the north coast and part of the Pyrenees. The Sierra Nevada, at the extreme south, and the Pyrenees are both lofty enough to be partly snow capped, with peaks reaching somewhat over 11,000 feet. Most of the ranges extend roughly east and west and tend powerfully to break up the country into separate units.

6 *Portuguese Iberia*.—Most of Portugal, although not radically different from adjacent parts of Spain, may be considered a separate region, for it has more rainfall than most of Spain (30 inches on the average in contrast with 15 inches for most of Spain). Portugal, also, has somewhat less marked seasonal contrasts of temperature. It also slopes mostly in one direction, toward the west, while Spain slopes partly west, partly south, partly east, and partly north. Furthermore, the cork oak and the olive are found in almost all parts of Portugal but only locally in Spain. The mountainous extreme northern part of Portugal, however, resembles northwestern Spain more than it does the southern or lowland part of Portugal and is part of humid Iberia

AGRICULTURE

Importance and Distribution.—The 26,000,000 people of Iberia are mostly engaged in crop growing and in grazing. Upon the plateau or *meseta* little water is available for irrigation and hence most of the crops are grown by dry-farming methods. Many of the fields (about 40 per cent of the tilled acreage) lie fallow every other year to permit a sufficient supply of moisture to accumulate to yield a small crop of wheat, barley, or chick peas the following year. In respect to wheat, all of which is of the winter variety, Spain ranks about fifth among the European nations in acreage (10,000,000), in total yield (125,000,000 bushels), and in yield per acre (13.6 bushels). Nevertheless, about one-fifth as much wheat as is grown is imported, chiefly from Russia to Barcelona. Portugal now devotes about 1,000,000 acres to wheat, but receives a yield of only about 11 bushels per acre and normally imports considerable. Barley is relatively important also, about 4,400,000 acres or one-eighth of the cropped land being sown to it. Only European Russia and Austria have a larger proportion (Fig 262). The yield per acre is small, however, 15 to 21 bushels on the average in contrast with 35 bushels in Germany. Enough rye is grown in northwestern Spain (1,600,000 acres) to give Spain fourth place among the nations of the world. For Iberia as a whole about one-third of the land is devoted to cereals. The northwestern

portion likewise produces most of the relatively few potatoes. The extremely dry summers of most of the land are highly unfavorable to potatoes, and doubtless help explain the fact that Spain produces fewer in proportion to area than any other part of Europe except the Balkan Peninsula and the subpolar section. Apples are another crop largely confined to the northern and western slopes of the Cantabrian Mountains. The production in this favored strip is rather heavy, and there cider is a chief beverage. Peaches, on the other hand, are most abundantly grown in the Mediterranean section, though some are produced upon the upland by irrigation. Sugar beets likewise are grown by irrigation, and almost none is reported from the more humid section of Iberia. Spain formerly depended upon Cuba and other possessions in America for sugar, but, at the close of the Spanish American War, began to grow sugar beets, and now enough sugar is obtained from beets to make importation unnecessary. Another crop which is largely grown by irrigation and is not common in the humid section is oats. As in the United States large quantities of oats are grown in the corn belt, it is

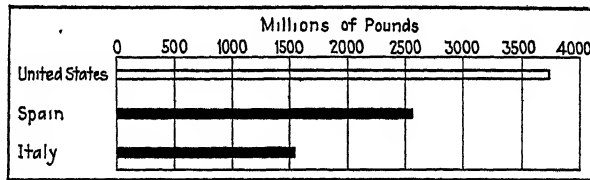


FIG. 280—Citrus fruit production, average of 1926 to 1927

interesting to note that in Iberia little is grown with corn. Spain devotes nearly 2,000,000 and Portugal 500,000 acres to oats, with an average yield per acre of 22 and 11 bushels, respectively.

Special Crops.—The four crops for which Iberia is especially noted are grapes, olives, oranges, and cork. None of these is grown extensively in the humid northern portion. The heaviest production of grapes is near Barcelona, of citrus fruits near Valencia, and of olives in the broad valleys near Seville, with a lesser important area near Barcelona, especially along the Ebro (Fig. 281).

Grapes.—Iberia has approximately as many acres of vineyards as has France or Italy. In percentage of cropped land planted to vines, Portugal and Spain have about 8 per cent, which is greater than any other nation except Italy, which has about 14 per cent. As the yield of grapes per acre averages about 2,300 pounds compared with 5,000 in France, Iberia produces somewhat less than half as much as France (Figs. 174, 298). Grapes are grown extensively in all but the coolest northern coastal section and in the more barren mountains and saline flats. Many grow upon terraced hillsides, with only such natural irrigation as

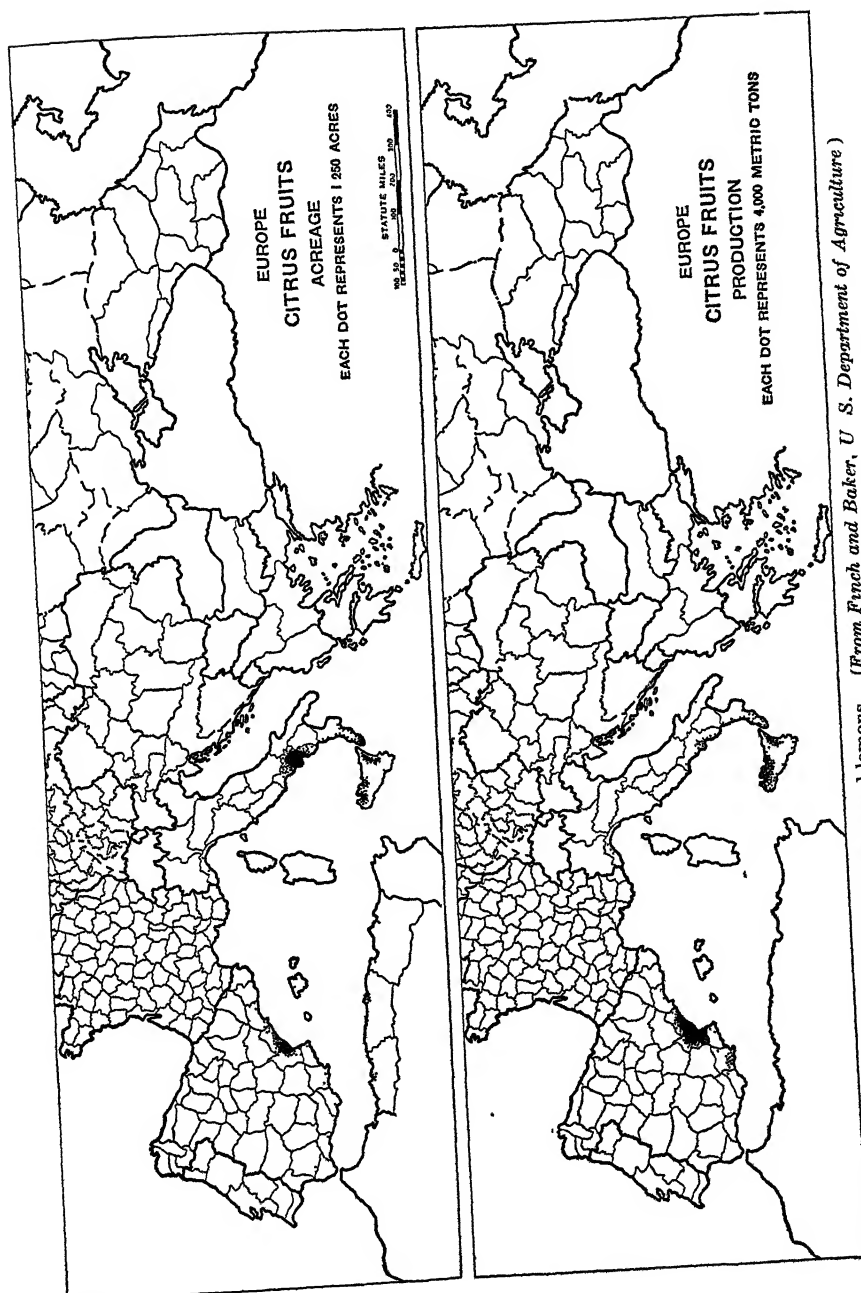


FIG. 281 — Production of oranges and lemons (From Finch and Baker, U. S. Department of Agriculture)

the run-off from the higher slopes afford (Fig. 42). Spain devotes about 3,500,000 and Portugal about 1,000,000 acres to grapes (Fig. 78)

Olives.—In respect to olives, also, Spain with 4,000,000 acres ranks next to Italy in acreage. In this case, however, it has a higher yield, and ranks first in production. It produced about 3,500,000 metric tons of olives and made about 125,000,000 gallons of olive oil, or an average of 31 gallons per acre, for 1922 to 1929 (Fig. 54). Olives are grown quite extensively in the southern half of Spain, but only two small areas have notably heavy production, those near Seville and Barcelona, already mentioned. Many of the trees are several decades old and some are several centuries old and are very decrepit. In recent years, however, there has been much grafting of select varieties upon the ancient trunks, and the small vigorous young shoots growing from short trunks three or more feet in diameter give many orchards a strange appearance.

Citrus Fruit.—In respect to oranges, as with olives, Spain contains the area of most intense European production. Near Valencia something like 40,000 acres are planted to oranges, with a smaller area in lemons (Figs. 53, 54). For the whole of Spain there were in 1928 about 22,000,000 orange trees and 1,000,000 lemon trees. The citrus trees are all irrigated, but most of the olives receive only the run-off from the adjacent slopes.

Cork Oak—Another crop requiring special mention is cork. Portugal produces nearly one-half of the world's supply and Spain over one-fourth. Southern Portugal and the southwestern and the northeastern parts of Spain yield most. The cork is grown without irrigation in most places, and few of the trees were planted. The Portuguese cork production was 220,000,000 pounds in 1928 and formed a leading export, one-ninth by value of all Portuguese exports on the average, and one-twelfth of Spain's (Fig. 290).

Sheep.—Many sheep are raised, about 20,000,000 in Spain, and 3,500,000 in Portugal. Spain has more sheep in proportion to the population than any other European country except Bulgaria, though in proportion to area it ranks below Britain and Italy, as well as below the Balkan states, which have four times as many (Fig. 314). Spain has long been famous for its merino wool. The cold nights, characteristic of the dry plateau and of the drier portion of the lowland as well, have encouraged the production of a heavy fleece on the sheep and the use of woolen clothing and blankets by the people. Blankets are often worn over the shoulders by the farmers going between the villages and the distant fields in the early morning and late evenings, as well as by the shepherds.

Other Animals.—Next to sheep, the ass and mule are the most important domestic animals. Iberia has over 3,000,000 of these beasts of burden, 1 to each 8 people, or about 14 per square mile. The Balkan

Peninsula is the only region with more asses (Fig. 313). Some fine strains are reared in Iberia and some are exported to the United States and elsewhere for breeding purposes. The distribution of asses and mules is fairly uniform over the peninsula, for the drier regions, where little else can be grown, still can raise these hardy beasts. There are few horses in Iberia, and, although there are about 4,400,000 cattle, they are relatively scarce except in the humid portion of Spain and Portugal. Two-thirds of the area of Iberia has only about 1,000,000 cattle, or about 7 per square mile. By contrast, Great Britain averages 100 per square mile and the Netherlands, Belgium, and Denmark each about 165 per square mile, or nearly twenty-five times as many as are found in most of Iberia. Swine, likewise, are mostly confined to Portugal and westernmost Spain, the more humid portion where corn is grown. About



FIG 282 —Fighting bulls grazing in the rainier northern part of Spain.

three-fourths of the peninsula has only about 7 swine per square mile, while Germany has 160 and several of Germany's neighbors each about 125. The total number in Iberia is about 6,000,000.

MINERALS

Mercury.—The famous Almaden mine of south central Spain has yielded a large share of the world's output of mercury for centuries. In 1913 it yielded about 35 per cent, in 1926, 38 per cent, and in 1928, over 40 per cent. Furthermore, there are large reserves of the ore. Although Spain was surpassed by Italy in the years 1923 to 1926 in the output of mercury, this was possible only because Italy annexed the important mercury mines of Idria, formerly in Austria, nearly doubling her output. Since 1926, however, the Italian output has declined and Spain has regained supremacy.

Other Minerals.—Spain, in 1928 produced 7 1 per cent of the world's lead, 3.2 per cent of the iron ore, 3 per cent of the copper, 2 8 per cent of the zinc, 1.3 per cent of the potash, and 7.4 per cent of the superphosphate. The lead comes chiefly from the southeastern province of Jaen between the Sierra Nevada and Sierra Morena. The copper comes almost exclusively from the extreme southwestern part of the country near Huelva, and the zinc from near the south coast of Murcia and from near the north coast of Santander. The iron ore comes chiefly from the north coast near Bilbao (Fig 70), with a lesser amount from near the south coast (Fig 283)

Foreign Control.—As the chief mines of Spain are owned and managed by British or French interests who make most of the profit from them, their activity varies sharply with the demand for their products, and

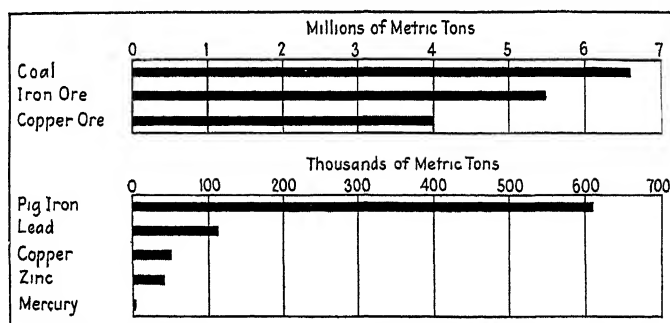


FIG. 283 —Spanish coal and metal output in 1928

consequently their output varies radically. For example, more than half again as much iron ore was produced in 1928 as in 1926, but in 1929 the output was less than half that of 1926, and in 1930 it was less than a third. The output for 1928 of various mineral products is shown in Fig. 283.

MANUFACTURING

Although a high protective tariff prevails in Spain (see the tariff walls, Fig. 135) relatively little manufacturing is done, except of cotton goods, for domestic consumption, at Lisboa, and especially at Barcelona. There were some 115,000 workers in Spanish cotton mills recently, some 27,000 in woolen mills, and some 3,000 in silk mills. Some 20,000,000 pounds of raw silk were produced recently, chiefly in the southeastern province of Murcia. Bilbao, in addition to manufacturing approximately 500,000 tons of pig iron produces some steel and does some shipbuilding. Considerable salt is obtained by the solar evaporation of sea water near Cadiz and also in southern Portugal. Olive oil is extensively rendered at Seville. The chief industrial city by far is Barcelona where in addition

to the textile mills and the manufacture of numerous miscellaneous items, some electrical machinery is made. Barcelona receives much power from hydroelectric plants in the Pyrenees. The existing hydroelectric plants of Spain had a capacity of 1,000,000 horsepower in 1929, about one-fourth of the estimated total water power of Spain. Esparto grass planting is carried on locally on the southern part of the plateau. Esparto grass, a native of the drier areas, formerly was gathered extensively for paper manufacture.

FISHERIES

With so large a population living near the coast as is present in Iberia, and with a large demand for fish encouraged by the Catholic proscription against the use of other meat on numerous days, a considerable development of the fishing industry is to be expected. In Spain some 130,000 men are employed in fishing and in Portugal the fisheries are next to agriculture in importance and yield about one-fifth of the exports by value. The most important sections are near the northwest and southwest corners of the peninsula, and the chief fish caught are the sardines and tunny.

CITIES

The cities of Iberia having more than 100,000 people with their approximate 1929 populations, are:

City	Population	City	Population
Madrid	820,000	Malaga	160,000
Barcelona	770,000	Zaragoza	155,000
Lisboa	530,000	Murcia	155,000
Valencia	370,000	Bilbao	150,000
Porto (Oporto)	225,000	Granada	110,000
Sevilla	216,000	Cartagena	100,000

Of these 12 cities 9 are seaports; Murcia is only a short distance from the sea, on a river which is navigable that far for small boats; and Zaragoza is on the Ebro River at the junction of the railroad across the central Pyrenees and the main line from Barcelona to centrally located Madrid.

Of the 20 cities of Iberia having populations of 40,000 or more, only Madrid, Granada, and Valladolid are at an altitude greater than about 500 feet. Madrid is at 2,100 feet and the others at 2,200 and 2,300, respectively.

COMMERCE

Spain imported commodities valued at about \$500,000,000 for the average year from 1923 to 1929. The chief items and the approximate

percentage they formed of the whole and the chief nations sending them are shown in Figs. 284, 285.

Spain exported commodities valued at \$350,000,000 for the average for 1923 to 1929. The chief items and approximate percentages they formed of the whole and the chief countries receiving them are shown in Figs. 288, 289. The chief items of the Spanish trade with the United States in recent years are shown in Figs. 286, 287.

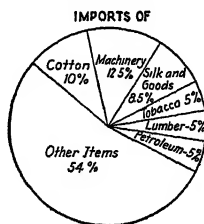


FIG 284

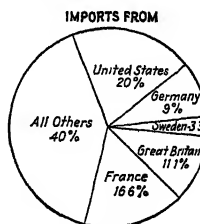


FIG 285

Figs. 284 and 285 —Chief Spanish imports 1923 to 1929 average and the countries sending them.

Portugal's exports and imports had average values of about \$40,000,000 and \$105,000,000, respectively, for 1925 to 1928. The chief imports were cotton, wheat, sugar, and automobiles. Additional significant facts as to the foreign trade are shown in Figs. 291, 293.

CONCLUSIONS

Handicaps. *Climatic.*—Iberia's handicaps include the great uncertainty of rainfall in most of the area, with consequent sharp fluctuations

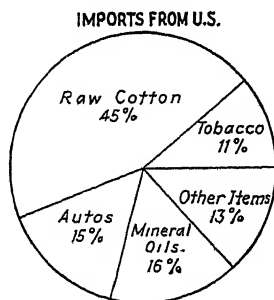


FIG 286

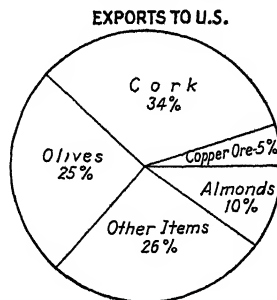


FIG 287

Figs. 286 and 287 —Spanish trade with the United States, approximate averages for 1925 to 1929

in the yields of crops (Fig. 33); the extreme dryness of the air during the hot days; the large amount of dust toward the close of the long rainless summer; the cold nights.

Topography.—Another handicap is the difficulty of railroad construction from the coast up onto the steep-sided plateau or across the numerous

mountain ranges Spain has only about 9,800 miles of railroads and ranks about twenty-seventh among the nations in ratio between railroads and population and eighteenth in proportion to area.

Most of the hauling, even of such bulky commodities as unthreshed grain, is done still on the backs of donkeys (Fig. 82) Roads are very scarce and communication is inadequate.

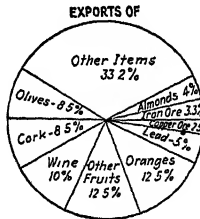


FIG. 288

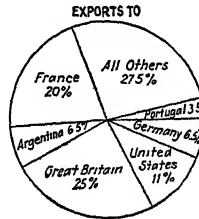


FIG. 289.

FIGS 288 and 289 —Chief Spanish exports and the countries receiving them, average 1923 to 1929

Conservatism.—An additional handicap is the conservatism of the people, more than half of whom do not read or write, do not know what is going on elsewhere and care little, and therefore do not take full advantage of inventions and discoveries made elsewhere. The per capita mail of Spain is only one-fifth of that of France and one-eighth that of Great Britain



FIG 290 —Weighing Portuguese cork.

Another example is that although dry farming has been practiced for centuries in Spain, the light tractor, so helpful in the extensive type of farming most successful in a climate as uncertain as that of Spain, has scarcely been introduced.

Large Estates.—There are many large estates. For example, one-third of the state of Cordoba belongs to 176 proprietors who have an average of 2,246 hectares (5,547 acres) each. Much of the better land of the country is held in large tracts, many of which belong to the Catholic Church and pay no taxes

Disdain of Labor.—There is, moreover, a hearty disdain of manual labor and only those who are compelled by dire necessity do physical work. Commercial activities are also in popular disrepute, as well as scientific research and other scholarly pursuits.

Bull Fights.—Another unfortunate condition is the relatively large amount of the better land devoted to the rearing of fighting bulls, and the considerable fraction of the energy and income of the people that is expended unwholesomely in attending bull fights and participating in lotteries.

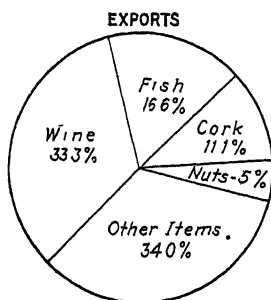


FIG 291

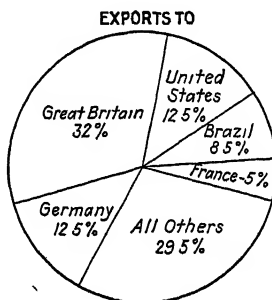


FIG 292

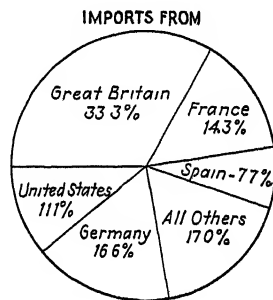


FIG 293

FIGS 291 to 293 —Portugal's foreign trade, approximate average 1925 to 1928.

Water Shortage.—Geological conditions are favorable for deep wells in many regions and in many places flows might be obtained, but very few wells have been drilled. An abundance of deep wells would make possible scattered farm homes instead of compact villages such as now prevail. Much time is wasted in going between village home and distant field, and the fields are not cared for as well as they would be if the people lived on the farm. Likewise, in such villages as those in Spain, life is probably less wholesome than is life on farms (Fig 277). If a dependable supply of water were obtainable from wells it would also not be so necessary as now to drive all the sheep to the mountains in summer. The area irrigated could be much increased by impounded waters. At present there is almost no storage of water in reservoirs, although there are many sites where small reservoirs could advantageously be built.

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CHAPTER XXIV

ITALY

Rebirth of an Old Nation.—Italy is often referred to as old historically. Yet the nation as we know it today is very youthful. The Romans, it is true, unified the country twenty centuries ago and from it as a base they conquered the lands about the Mediterranean and even beyond. Yet, after the fall of Rome, petty quarrels finally divided the country into many small states, easy prey to more powerful neighbors. Some of these Italian city-states, however, such as Venezia, Genova, and Firenze became famous in the Middle Ages not only as commercial and political centers but also for their art and culture.

With the abandonment of the Mediterranean route to the East following the discovery of the route around Africa and with the industrial revolution, the economic center of gravity shifted to northwestern Europe. Italy, formerly near the center of the Western World, was now left on its margin. Neither the opening of the Suez Canal, the tunneling of the Alps, nor national unification restored her former power. A late comer among the modern nations she fared even worse than Germany in the matter of colonial territories, and though she was one of the victors in the World War her material gains were of almost negligible importance. Recently, however, the country has attempted to lift herself out of the class of Spain, Portugal, and Turkey by a more aggressive foreign policy and industrial expansion.

PHYSICAL DIVISIONS

The Northern Plains. *The Economic Center of Gravity.*—Fertile, accessible, favored with a temperate climate and so situated as to be easily irrigated, the plains of north Italy form one of the garden spots of Europe. In addition, the recent development of long-distance electrical transmission has placed within reach the abundant water power developed in the Alpine zone, with the result that recently manufacturing has also assumed an important role. Because of these favorable conditions this northern section, though occupying only 15 per cent of the area of Italy, provides homes and a livelihood for almost 40 per cent of the population.

North vs. South Italy.—Italy consists of two regions contrasting sharply not only in their physical setting but also in the economic and social conditions to which this has in each case given rise. In the north

are the plains of the Po, whose surface features, climate, and human activities approach those of northwestern Europe. To the south are peninsular and insular Italy, dominated by mountains, the Apennines on the peninsula and lesser ranges in Sicilia and Sardegna, with a climate typically Mediterranean and a population mostly illiterate and poor.

Origin of the Northern Plains.—The plains of the Po are a north-westward extension of the Adriatic basin and were, in recent geologic times, an arm of that sea. Streams from both Alps and Apennines carrying down enormous quantities of sediment filled up the trough, forming a great piedmont plain. This extension of the lowland at the expense of the Adriatic is still in progress¹—indeed, at an increasing rate—but, with confinement of the lower stream channels by dykes, aggradation is largely restricted to the stream bottoms and to the delta rather than, as formerly, distributed over a broad flood plain. The upper Po is an eroding stream, its waters swift and suited for use in irrigation and power, while the lower portion is aggrading its bed to such a degree that for hundreds of miles both it and its tributaries are restrained by dykes. Seepage and floods have produced extensive swamps in this section, so that drainage becomes a serious problem.

The Po.—While the Po and its tributaries are useless for navigation purposes and are rather difficult to cross, they have been of inestimable value in opening routes through the Alps. Because of the steep gradient of these slopes, crossing them to northern Europe is practically impossible except where river valleys lead to passes. From west to east are several famous passes, Mount Cenis reached via the the Riparia, St. Bernard via Dora Baltea, Simplon via Toce, St. Gotthard via the Ticino, and the Brenner via the Adige. All but the last named are tributaries of the Po.

The Italian Lakes.—The beautiful lakes which mark the southern border of Alpine Italy were formerly fjords along the margin of the great inland sea which covered the plains. During the Ice Age valley glaciers descended the southern Alpine slopes and deposited great crescent-shaped terminal moraines across the open ends of the fjords. Subsequently they were transformed into lakes (Fig. 294). As might be expected from the way in which they originated, the lake basins are long, narrow, and deep, varying in depth from 900 to 1,800 feet. Their shores are precipitous, their waters a deep blue, and the marvelous beauty of the lakes and their surroundings attract yearly thousands of visitors. Their use in the regulation of the flow of the rivers is of great importance in connection with flood control, water-power develop-

¹ Marinelli Olinto estimates the average annual increase from 1823 to 1893 in the Po delta as from 173 to 175 acres or a total for the period of 20 square miles. A Gekie estimates that the total Po basin is being lowered on an average 1 foot in 729 years. High parts are lowered; low parts, extended and raised.

ment, and irrigation. The Alpine slopes, now within the Italian frontier, are of especial interest to the people of the plains, and the abruptness of their gradient is of strategic importance, as Italy has many times found to her cost. The descent of the invader, attracted by the fruitful plain, was easy, defense against him, difficult. Consequently the lowlands were for centuries in the possession of peoples from beyond the Alps, so that not the lowlands but the Apennines marked the frontier. Since the World War the boundary has approximately followed the Alpine divide and Italy has a natural line of defense along her Austrian border.

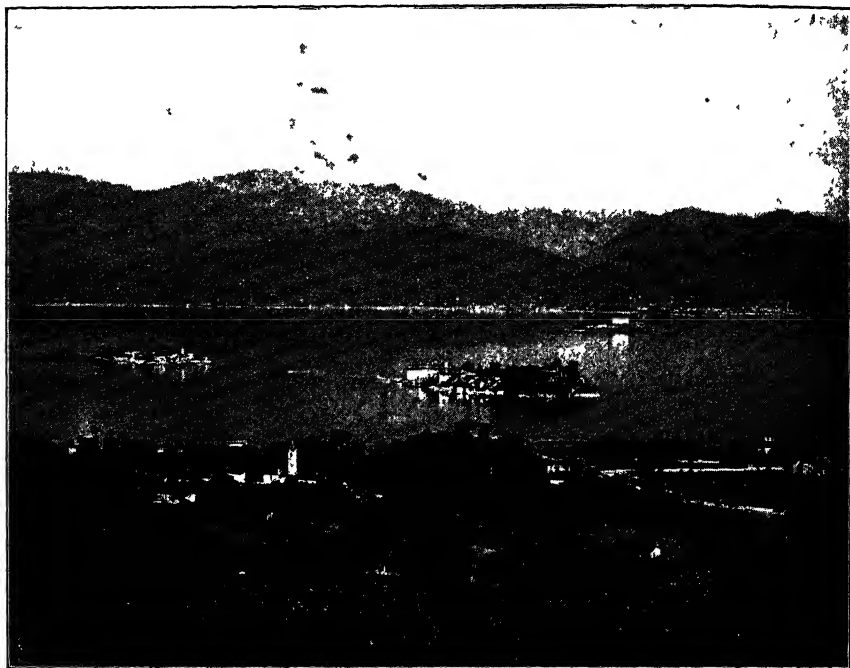


FIG. 294 —Lake Maggiore (Courtesy Italian Tourist Association.)

Climate of the Plains.—Almost completely enclosed by its mountain rim, the northern plain has a climate much more continental than that of the peninsula which is exposed to sea influences. In marked contrast to sunny Tuscany, or even the south-facing Alpine slopes, the north flanks of the Apennines suffer much from winter cold. In general the plains have heavy snows, with soil frozen from mid-November to the end of March. Milano has about 2 months of frost. Summers are hot with moderate precipitation. Torino receives 34.5 inches; Padua, 33.9 inches.

Cities of the Northern Plain.—The main cities of the plain are located primarily with reference to the routes through or over the surrounding mountains. The rivers do not offer attractive sites and no important

city is to be found on the middle or lower course of the Po. The original location of the larger centers was primarily for trade, and those so placed as to command the traffic between the plains and the regions beyond the mountain barrier enjoyed the greatest prosperity. Thus Torino commands the approaches to Mount Cenis; Milano the Simplon and St. Gotthard, Verona the Brenner, and Bologna the Poretta.

Venezia is one of the world's most famous cities. Its unique site,¹ its historic buildings, and its art treasures serve to attract some 800,000 tourists annually; in fact, the city derives its chief income as host to this throng of visitors. Originally settled by a group of refugees fleeing before the Hun invaders, the inhabitants turned to the sea for their livelihood. The site of the city was well suited for trade. It not only commanded the chief gateway of the mountain-girt plain of the Po, but it lay just opposite the lowest pass over the Alps. For centuries it was the middleman for the rich products from the East which here broke bulk to go via Verona, the valley of the Adige, over the Brenner Pass to Augsburg, Nurnberg and Regensburg (Ratisbon), which cities in turn passed them on to northwestern Europe. Incidentally, her contact with the artistic goods and luxuries of the Orient stimulated the manufacture of similar articles within her own shops, goods for which her visitors provide a ready market.

The interruption of this profitable trade and the diversion of the traffic around Africa spelled ruin for Venezia. Even the opening of the Suez Canal and the building of the Alpine tunnels failed to restore her trade, for it is far cheaper for ships to complete the journey via Gibraltar than to send their cargoes over the Alps. Furthermore, the harbor, because of its shifting coast line and shallows, is unsuited to modern shipping. As a port its present importance is purely local, although a strong effort to revive its shipping is being made by the construction of a harbor and a port on the mainland opposite. In spite of its location to the north of the Po mouth, whose silts are carried south by the currents, the fate of Venezia may be read in that of Ravenna, Spiera, Adria, and Aquileia, former ports, now far inland, which have passed through the same cycle of change. Human effort may temporarily delay the inevitable, but her maritime supremacy is a thing of the past.

Milano and Torino are great industrial centers. Both not only occupy strategic commercial positions but in addition are near cheap hydroelectric power. The former is the greatest manufacturing city of Italy, specializing in machinery and textiles, and rivaling Lyon as the premier silk center of Europe. Torino, on the upper Po, has become a sort of "Italian Detroit."

¹ The city occupies 122 islands joined by 350 bridges and intersected by some 176 canals over which an additional 410 bridges have been built. A railway bridge about 2 miles in length joins the city to the mainland, while communication about the city was formerly mainly by canal but now is chiefly by narrow streets and bridges.

THE PENINSULA

The Apennines.—The Apennine “backbone” with its adjacent foothills occupies the greater part of peninsular Italy. The axis of the range forms in the center of the peninsula a great bend skirting the Adriatic with the ends reaching the western coast at the “hip” and “toe,” respectively. Made up of parallel limestone ranges of considerable height it not only seriously limits the area of cultivable land but constitutes an important commercial barrier between the two coasts.

At the north the mountains rim the Gulf of Genova as a true coastal range. Though barring access to the interior, they shield the coast from the north winds, giving both climate and vegetation a semitropical aspect. The Italian Riviera here is an extension of that of France, and like it, an attractive winter resort. Although farther north than Portland, Maine, its genial climate allows the growth of such fruits as the olive, orange, and the lemon.

Genova, a Great Mediterranean Port.—Genova possesses the best harbor of the coast and fortunately lies opposite the convenient Bocchetta Pass (2,560 feet) leading to the Po Valley. This route, since replaced by railway tunnels, made the port the most accessible outlet for the rich and productive basin of the upper Po in the environs of Milano. The Simplon, St. Bernard, and St. Gotthard expanded the hinterland of Genova into Switzerland as well as into adjacent Germany. The bulky raw materials and fuel needed by these regions comes via the sea route to Genova; but, since their manufactures go overland, the tonnage movement in and out of Genova is very unequal, the imports being four to six times as large as the exports. In spite of this unfortunate lack of balance and the troublesome topographic restrictions the city has grown rapidly and has in recent years (1924 to 1925) ranked first among Mediterranean ports. In contrast to its old rival, Venezia, it is modern and progressive although far less picturesque.

The Plain of West Italy.—Within the great bend of the Apennines, *i.e.*, west-central Italy, lies a section which in importance ranks second only to the northern plains. It is of varied relief, but mostly hills and mountains, projecting spurs from the Apennines. Within its borders are, however, three small plains areas of extraordinary activity, each supporting an important city.

The Arno Valley.—At the north is the valley of the Arno with Firenze in its midst. Here is to be found agriculture almost as intensive and progressive as in Holland, with vineyards, vegetables, and olives all competing for the same ground (Fig. 295). The manufacture of wine, olive oil, and art goods also plays an important role in the local economy, while the long-stemmed wheat serves as a basis for the famous Leghorn straw braid.

Firenze is one of the world's most illustrious art centers and its world-famed galleries, containing many originals by great artists, are visited by thousands of tourists every year. The city is on the best route leading from the lower Po basin, over the Apennines to south Italy.

The Campagna.—The second plain lies in the central part of the western slope. Though productive and well populated in ancient times, the Campagna has for centuries been largely a pasture land deserted even by shepherds in summer, when malaria is especially bad. Recent efforts of the government are, however, rehabilitating the region.



FIGS 295 —Three crops from the same soil near Firenze, Italy (1) pluma, (2) grapes, (3) vegetables. Soil is valuable, hence the three crops. This particular soil is river bottom type and very rich (Courtesy W V Cruess)

The Tiber, with Roma spread over its seven hills, occupies the center with the city dominating the region. In ancient times the hills gave protection not only against invaders but river floods as well. In later years they have also made of the city an island of refuge in the malarial plain surrounding it. Its central position in the peninsula, at the cross-roads of routes leading in all directions and at what was originally the head of navigation on the river, has contributed greatly toward making the city a center of art, civilization, and power.

Neapolitan Plain.—A third focus of activity is in the south around the Bay of Napol. Soils from weathered lava, famous for their fertility, have made the region about Vesuvius a garden. Napoli, on the beautiful bay of the same name, long was the largest city of Italy and, by its recent capitalization of cheap labor and hydroelectric power, bids fair

to remain an important industrial center. Like Firenze and Roma it is a nodal point for routes leading not only north and south along the coast but also across the central mountain chain to Brindisi.

Eastern Plain Handicapped.—The westward swing of the Apennines into the "toe of the boot" leaves the "heel" with considerable plains area. On the leeward side of the mountains it unfortunately suffers much from drought. Wheat, olives, and the vine are raised, the high gluten content of the grain making it especially suitable for macaroni.

THE ISLANDS

Sicilia, the largest of the Mediterranean islands, is a link in the Apennine-Atlas mountain chain which, within comparatively recent geologic times, formed a continuous land connection between Europe and Africa. Crustal movement is, indeed, still active in this region and earthquakes and volcanic eruptions are frequent. In 1908 one of the most destructive earthquakes of recent times rocked Sicilia and adjacent Italy, killing approximately 100,000 people and leveling the city of Messina. Mount Etna, the highest volcano of Europe, is the southernmost of the active cones in the chain which reaches from Elba to Messina. Stromboli, in the Lipari group north of Sicilia, has long been known as "the lighthouse of the Mediterranean" because the clouds above it are almost always illuminated at night by the light from the lava in the crater below.

In spite of its mountainous surface, the constant menace of volcanoes and earthquakes, ravages of malaria and the frequent droughts, Sicilia has a fertile soil, a sunny climate, and a highly strategic location. Its central position in the Mediterranean has long made the island a meeting ground between forces from north and south, from east and west, and its history is a chronicle of centuries of strife—of a succession of invasions, conquests, revolts, and oppressions interspersed with periods in which there developed a high stage of culture and civilization. Its present population of over 4,000,000 makes it one of the most densely inhabited agricultural areas of Europe (over 450 per square mile).

The economic and social conditions prevailing on the island leave much to be desired; stagnation and inertia have characterized the agricultural situation. Although drought is the most serious handicap, until recently little progress had been made in irrigation. Though climate and soil favor highly specialized fruit and vegetable growing, careless and unscientific methods and lack of cooperation resulted in failure to cope with insect pests and diseases. Added to this was a transportation system woefully inadequate and poor. Latifundia, absentee landlordism at its worst, and a poorly paid peasantry, for the most part landless and illiterate, always on the verge of starvation have been outstanding features of their agrarian economy. It was such condi-

tions that each year forced out thousands as emigrants and provided a fertile field for organized lawlessness and crime for which the isolated sections of Sicily and southern Italy were long notorious.

Sardegna, although about the same size as Sicily, has only one-fifth as many people. It is probably the most sparsely populated and backward of any part of Italy. Nine-tenths of the island is mountainous, and, although the plains are fertile, malaria is rife and drought is the rule. Agriculture is primitive; the forests and fisheries, as well as the lead and zinc deposits, are practically unexploited. The recent completion of the Tirso power and irrigation project which will water about 50,000 acres and supply cheap energy for mining is the most hopeful sign in a rather discouraging situation.

AGRICULTURE

Agriculture Progressive in North Italy.—The plains of the Po are often referred to as "the garden of Europe" and in their productiveness fully justify that title. In comparison with peninsular Italy they are richly endowed, but even here the great fertility is largely the result of arduous labor of many generations who have leveled, irrigated, and fertilized, or, in the lower basin, drained and reclaimed the marshes. "It has been estimated that in south Lombardy the irrigation system, which is the basis of the rich agricultural output there, represents an outlay of at least \$200,000,000 on an area of about 2,225,000 acres, or an average of about \$81 per acre"¹ Lombardy and Piedmont, of which one-half and one-third, respectively, in 1911 were under irrigation, together had 72 per cent of all the irrigated land in Italy (Fig. 296).

While the soils are generally fertile, the methods, crops, and value of the output vary much from one section to another. Thus in the west the farmer is largely dependent upon irrigation while to the east drainage is more important. North of the Po agricultural development is much farther advanced than to the south, the rivers are more regular, the greater distance from the mountains gives a gentler gradient, and the exposure is toward rather than away from the sun. As a consequence there is a marked contrast between the north slope with its prosperous looking homes, its broad fields of wheat, corn, or rice marked off by mulberry hedges, all well cultivated and irrigated, and the region to the south of the Po where the same crops may be found but are generally less prosperous, the soil less fertile, irrigation rarer, and the homes poorer and less well kept.

Agricultural methods as practiced in the northern plains approach those of northwestern Europe. Irrigation and drainage, intensive cultivation with a wide diversification of crops, dairying and forestry, all indicate a highly developed agricultural region for which a favorable

¹HOBSON, A., "Agricultural Survey of Europe. Italy."

climate, particularly a well-distributed rainfall, fertile soil, level topography, abundant water for both irrigation and power, together with a large local market in the industrial population have provided a favorable setting. In spite of a dense population and necessarily small-scale operations its per capita production of the staples, *e g.*, cereals, potatoes, and legumes, is greater than in central or southern Italy, this, as well as production per acre, declining generally as one goes southward.

Wheat.—Italy is a nation of wheat eaters both as bread and macaroni, its per capita annual consumption of about 75 bushels being almost as much as in France. For this reason and also because of its ability to withstand drought, wheat is an important crop throughout the country.

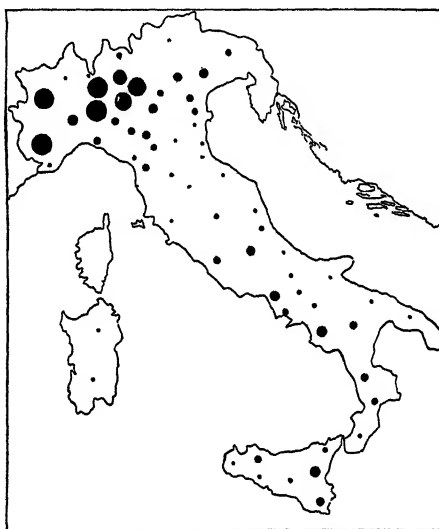


FIG 296.—Distribution of irrigation in Italy (Data from U S Department of Commerce.)

Italy, in fact, devotes a larger proportion of its cropped land to wheat than does any other European country, even growing considerable quantities upon the slopes of the Apennines.

Though found in every province, the map shows the bulk of the crop to be produced in the north and northeast, the northern plains alone accounting for 40 per cent of the total, where its greater relative importance is due mainly to better yields (Fig. 173). Thus while Sicily shows a greater acreage, extensive methods and less favorable climatic conditions make its total contribution to the national breadstuffs much less. Although widely grown in the north as an intertilled crop between rows of vine or mulberry, the acre yield averaging 21.7 bushels is about 75 per cent larger than in southern Italy where methods resemble those of Spain.

Although ranking third among European countries as a wheat producer, the dense population requires imports equal to from one-fourth to one-third the domestic output. In spite of increasing population the wheat acreage and production, have been declining, especially in southern Italy, and the government has conducted a vigorous campaign to increase the output. It is believed, however, that any augmented production must come from increased yields per acre rather than from any extension of the area planted, unless the nation is willing to go beyond economic limits in order to attain self-sufficiency. Improved methods including fertilization and irrigation, would do something for southern Italy in improving the yield but weather conditions are responsible for widely fluctuating returns. For example the wheat *acreage* for Italy in 1922 and 1923 was practically the same but the *output* in the latter year was 40 per cent greater.

Corn.—Corn ranks next to wheat among Italian cereals with an acreage about one-third as large. The moisture requirements naturally restrict it, except where irrigation is possible, to the northern plains almost three-fourths of the total production being from that region. The entire crop of the country is about the same as that of prewar Rumania or almost twice that of Russia. Corn in Italy is not only used as stock food but also for human consumption, especially among the poorer farming population.

Hay and Forage.—Of all the agricultural land about one-third is devoted to forage crops, and of the latter some three-fourths is in natural pasture. This latter, approximately 16,000,000 acres or one-fifth of the whole land area, is an indication of the extent to which mountains and aridity have rendered the land unsuited for tillage, since practically no acreage capable of cultivation is left in grass. With the rise in the agricultural wage scale, considerable marginal land of questionable value for cultivated crops will undoubtedly revert to pasture. As a whole, the total gross value of all the forage crops is actually greater (1921 to 1923) than that of the cereals or the vine.

While areas of secondary importance are found in Tuscany and near Napoli, the northern plains, with their more favorable rainfall regime, are the important forage region. Here considerable areas including the upper portions of the alluvial fans, the lower Alpine slopes, and the undrained or poorly drained flood and delta lands are better suited for such use than for grain or root crops. In the Alpine valleys and also in the basin proper there is much permanent meadow. Considerable forage is raised in rotation with other crops, in part under irrigation, and yielding upward of four crops annually. These "water meadows" serve as the basis of an important animal industry.

Other Crops.—Hemp and sugar beets are raised on a small scale, chiefly in the lower Po basin. Italy ranks next to Russia, though a

poor second, as a hemp producer and this is one of the few textile raw materials exported. Ferrara and Bologna districts account for the bulk of the hemp crop.

Italy is the only European country producing rice in large quantities and it is the only cereal of which she is a regular exporter. The chief producing area is near Milano. The acreage (about 351,000 in 1927)

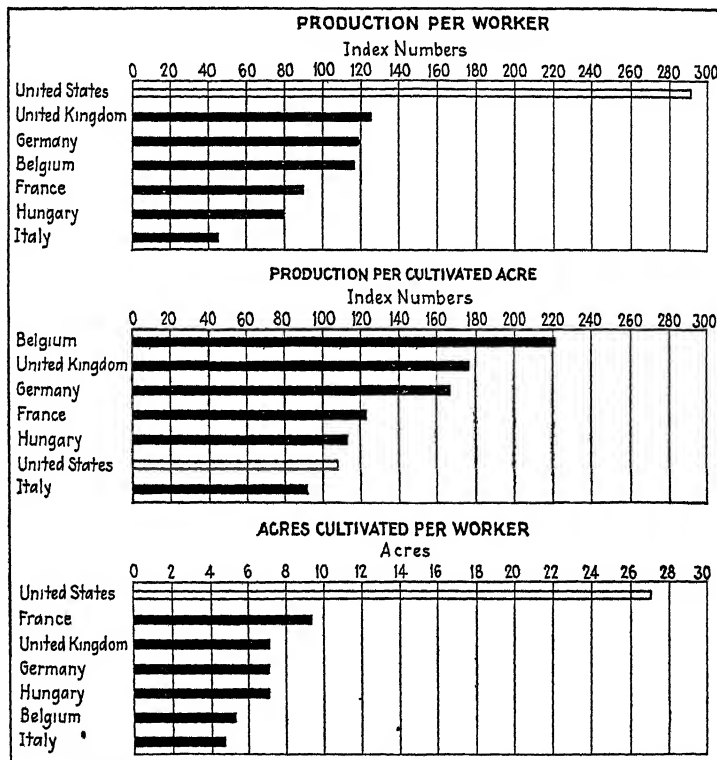


FIG. 297—Three significant graphs whose comparison brings out interesting relations. The large production per acre for European countries as compared with the United States is due chiefly to a large use of fertilizer and labor. Note the comparatively poor showing of Italy, a land of dense population, limited agricultural land, but of small production per acre. Drought, mountains, and poverty combine to produce yields actually lower than those of the United States with its extensive methods. (*U S Department of Agriculture*)

has been declining for the past half century, though improvements in yield have kept the total output about the same.

Animal Industries.—The importance of hay and forage crops in the north is naturally accompanied by a corresponding emphasis on cattle raising. The most intensive dairy district lies in the upper Po Valley. Since in Italy olive oil is regularly used in place of butter, cheese is the chief dairy speciality. Certain brands, *e g*, Gorgonzola and Parmesan are widely famous. In general meat is little used, though its

average consumption is growing, its place being taken by the more economical cheese, olive oil, legumes, and fish. The practice, in peninsular Italy, of living in villages often at a considerable distance from the farm creates a general demand for animal transport, so that cattle not only serve for food but are also extensively used as draft animals; indeed in that part of the country, this is their chief use. With the limited summer pasture in South Italy, the goat and sheep replace the cow for milk, and for the same reason the mule and ass largely replace the horse. Few swine are raised, those which are found being kept to dispose of household wastes, findings in field and forest, or skimmed milk from the cheese factories.

The large expenditure of human labor and the limited use of animals characteristic of Europe in general is, in Italy, shown in its extreme form. Each agricultural worker in Italy averages 4.7 acres of cultivated land, an amount even less than highly industrialized Belgium (5.3), and only one-half that of France (9.3) (Fig. 297).

Backward Agriculture in the South.—The change in agriculture from north to south Italy is almost kaleidoscopic, methods in the south greatly resembling those in Spain and Portugal. In the foot of the boot and in the islands there is a semifeudal land system, large estates extensively operated, using primitive tools and a one-crop system. Here, so it is said, a wooden plow and a yoke of oxen constitute the main agricultural equipment of thousands, and farming methods remain essentially unchanged from the time of the Caesars.

This condition is in large part a consequence of the more difficult topographic and climatic conditions in the south. There the forest destruction is greater and the stream flow less favorable, rainfall distribution more irregular, and temperatures higher, resulting in more intense droughts which, in parts, last for seven months. During the summer the pastures of South Italy are brown and the roads are ribbons of white dust. Lack of pasture, limiting cattle production, has meant scanty animal fertilizers, which condition has led to soil impoverishment. Of course where irrigation is practiced the higher temperatures bring bountiful returns—even greater than in the north—but the area so treated is pitifully small and chief reliance is placed upon drought-resistant crops, especially the vine and olive.

The Vine.—In no other country is dependence upon the grape greater than in Italy (Fig. 298). It is estimated to contribute almost one-fourth of the total income of Italian agriculture and in value ranks second only to the forage crops. Approximately 5,000,000 people, or about one-third of the rural population, depend upon it for a living.

Less sensitive to cold than the olive, it is important, even in the Po basin, but for south Italy it is the crop par excellence. Vineyards cover both slopes of the Apennines and in Sicily are planted up to an altitude

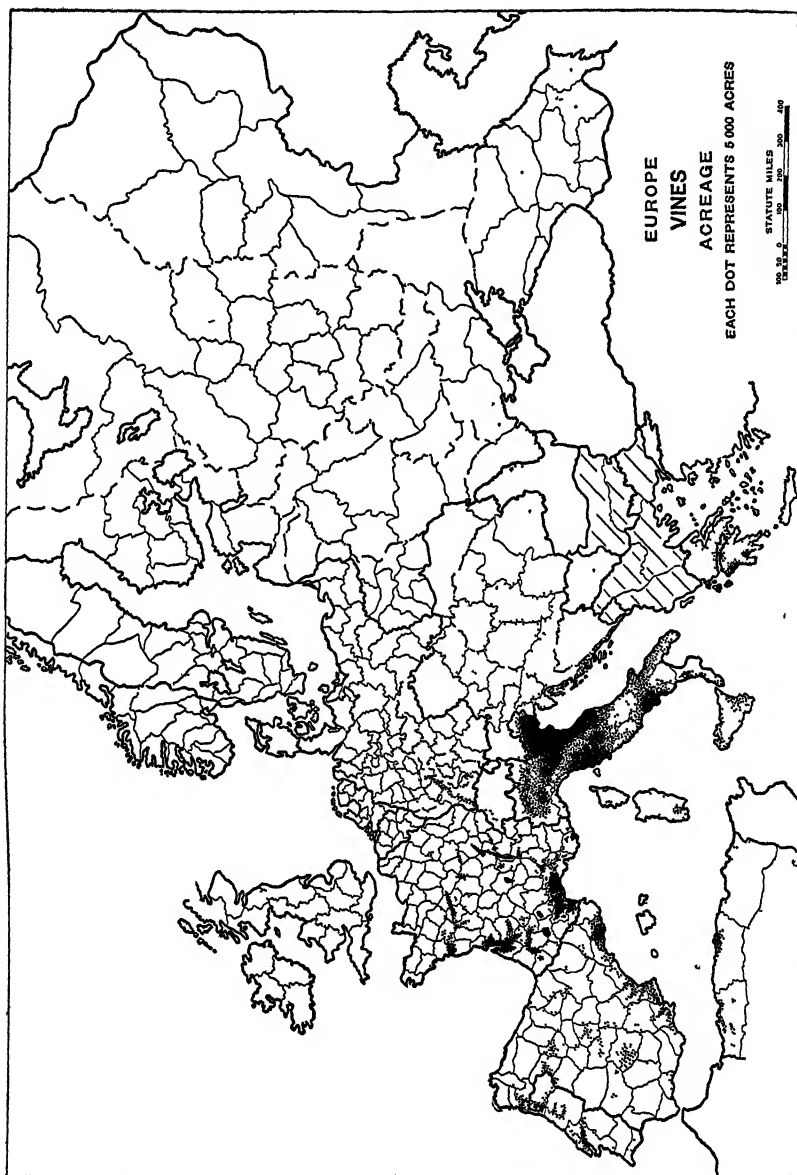


Fig 298—Italy of all countries is most dependent upon the vine. Although its acreage is larger, most of its vineyards have intertilled crops, so that the wine production is less than in France. Compare with Fig 172 (*U. S. Department of Agriculture*).

of 3,000 feet Four-fifths of the Italian vine acreage represents mixed crops, the grapes being alternated with fruit trees which serve as their support, with grain frequently planted between the vine rows. The yield per acre of any one of these crops is correspondingly small. Thus though Italy has a larger area in vines, the actual yield of France is about 50 per cent greater.

A warm climate, poor water supplies, the need of something to render the common vegetable diet of bread, beans, salad, and oil more palatable, together with the abundance of grapes and the ease with which they may be converted into wine, have operated to make the per capita wine consumption in the Mediterranean countries high. Though found on even the poorest peasant's table it should be remembered that most of the Mediterranean wines are light, *ie*, of a small alcoholic content. The average per capita consumption of wine in the three leading producing nations of France, Italy, and Spain is estimated to approximate 48, 28, and 21 gallons, respectively. From the Italian yield there is an exportable surplus of only 5 or 6 per cent, chiefly to European countries.

Keen competition demands much improvement in quality and standardization of production before Italian wines may hope to hold profitable foreign markets. The area of viniferous grapes might well be reduced and replaced with table and raisin grapes, both of which are now insufficient for even the domestic market.

The Olive.—As is true of the vine, the olive is grown on a larger acreage in Italy than in any other country of the world. The custom of planting mixed crops upon the same fields, common in much of the country, reduces the yield, however, so that on the average the Italian crop is only about two-thirds that of Spain, the world-leading producer (Fig. 279). Of the total olive acreage of Italy only one-fourth is devoted exclusively to that crop, yet this one-fourth accounts for about one-half the total output.

The olive, most typical of Mediterranean crops, finds its most congenial home in south Italy and the islands, this section accounting for three-fourths of the country's production. Apulia, Calabria, and Sicilia are the important olive provinces, the first named possessing over one-half of the specialized olive acreage of Italy. In sections of Apulia, the heel of Italy, it is the staple crop around which the whole farm economy centers, in Bari occupying as much as 40 per cent of the productive land. In central Italy it is still a commercial crop of considerable importance—about one-fifth of the whole—while the north accounts for only about 4½ per cent of the annual output. Tuscany, particularly the Lucca section is famous for the high quality of its oil, while in Liguria a few olives are grown along the protected Riviera.

Unlike Spain, the cultivation of the olive in Italy is gradually declining. There has been a decrease in the area of specialized culture,

an increase in mixed cultivation. In general the insect pests and diseases and the careless methods characteristic of agriculture in southern Italy together with the crude practice of domestic extraction of the oil have operated to depress the industry. In recent years there has been a strong tendency toward concentration of the oil manufacture in a few large modern plants, with a product much more uniform and of higher grade. The price of Italian oil ranks next to that of France and above that of Iberia. Much is imported from the latter and from north Africa for further refining and blending. There is an opportunity for great improvement in the Italian olive industry, both in the cultivation of the tree and in the manufacture of oil, with little doubt that the production could be doubled without increasing the area. Suited to lands of little use for other crops and providing an ideal substitute for the dairy cow which finds the summer drought a serious obstacle, the olive will undoubtedly continue to be a significant factor in Italian agriculture,¹ an important item in the diet and in the foreign commerce of the country.

Citrus Fruit.—Sicilia with the adjacent mainland is one of the world's three principal citrus fruit regions (Fig 54). The orchards are distributed in a crescent about the Tyrrhenean Sea, the more sensitive lemons predominating on the island, the oranges and mandarins on the mainland. The mountainous character of the region has led to the planting on steep slopes where bare rock is often terraced at enormous expense. Lemons as a whole constitute 60 per cent of the total output of Italy's citrus fruit, making that country the leading world producer. Over half of the lemon crop is marketed as extracts, concentrates, or some form other than fresh fruit.

FORESTS

Forests Deficient.—Reckless cutting of trees in the past coupled with a climate in which forest growth is naturally slow has left Italy, particularly in the south, with a serious deficiency in forest cover. Only one-sixth of the total area is wooded, a low average for a country 37 per cent of whose surface is mountains. In parts of the south *e g*, Apulia and the islands of Sicilia and Sardegna, the proportion forested is less than 5 per cent, while south Italy as a whole has less than one-half as much as the north. It was necessary to import one-half of her prewar wood needs to satisfy an unusually small per capita consumption. This lack of a wise forestry program with its consequent depletion of tree cover is particularly unfortunate in a country without coal or oil and dominantly agricultural, where topography and climate increase the difficulty of

¹ The average annual per capita consumption of oil for Iberia, France, and Italy is estimated at about 8 quarts. Italy had in 1914 a per capita butter consumption of only 2½ pounds, less than one-seventh of that of the United States

soil conservation and where malaria control and water-power development are vital (Figs. 299, 300).

Ninety per cent of Italy's forest is made up of broad-leaf hardwoods—beech, oak, and chestnut leading—only the upper Alpine slopes and the highest Apennines possessing stands of conifers. Chestnut in central Italy and cork oaks, especially in Sardegnna, are valued for nuts and bark, respectively, while beech and oak are favorites with the charcoal burners.

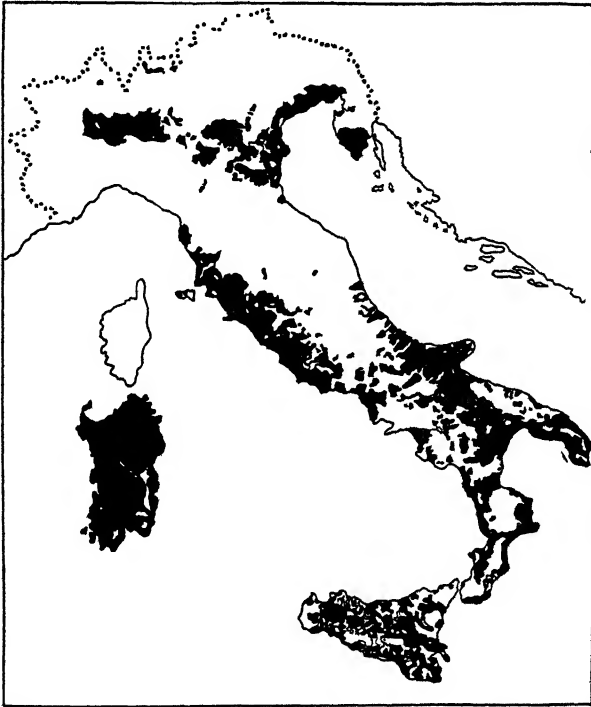


FIG 299—Malarial zones of Italy. Approximate boundaries in 1922. Note the close resemblance of malarial districts with those of plains. (After Dr. Lucien Reynaud.)

INDUSTRY

Industry Subordinate to Agriculture.—Although Italy was until recent years a nation of farmers, and even today has over one-half of the population directly dependent for its livelihood upon the exploitation of the soil, the past third of a century has witnessed a remarkable industrial development. The World War, with its restriction upon imports and at the same time with its enormous demands for manufactures, greatly accelerated a movement which is making of northern Italy an industrial region of no insignificant proportions.

Industrialization to Care for Population Increase.—For the explanation of this rapid growth one need not seek far. Considering its resources,

Italy is one of the most densely populated countries of Europe. Ribbed with youthful mountains and having considerable areas deficient in rainfall, to support its population of over 40,000,000 by agriculture alone is out of the question. Furthermore, population is increasing rapidly with an annual excess of some 400,000 births over deaths. Two solutions for the disposition of the surplus man power present themselves: emigration and industrialization. The former in the past served as the major safety valve of overpopulation. In the absence of an extensive colonial empire there has been a huge annual exodus to the countries

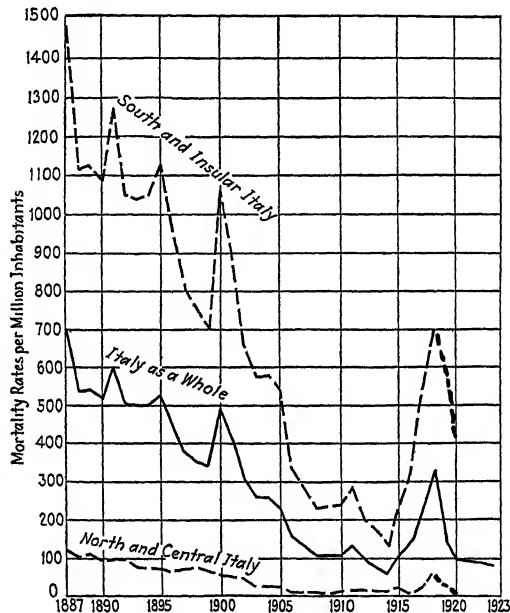


FIG 300—Italian death rate curves for malaria only. Note the rapid decline which has been accomplished by reclamation of poorly drained land and the increased use of quinine. In the south, higher temperatures, more irregular rainfall, and more backward social and economic conditions result in a higher mortality rate.

of the New World and to adjacent countries in the Old World. This situation goes far in helping to explain Italy's efforts in recent years to enlarge her colonial empire, to intensify her agriculture, and to expand her industrial activities.

Obstacles to Industrialization.—The unique character of Italian industrialism lies in the formidable nature of the obstacles with which it is confronted. Italy with scant supplies of the basic raw materials and still less of the fuels—two requirements the possession of at least one of which has usually been considered fundamental—is the least self-contained of all the great industrial nations of the world. Her industrial structure is supported instead upon the two pillars of an abun-

dant supply of comparatively cheap but efficient labor and an unusually rich endowment of water power.

Italy's reserves of coal, lignite, and peat are estimated to total only 340,000,000 tons, of which almost 90 per cent is lignite. Practically all of the coal mined comes from Istria in the territory newly acquired from Austria, a section whose reserves are estimated at only 13,000,000 tons. Unfortunately it is high in sulfur content and unsuited for many special purposes, including the making of metallurgical coke. The lignite is likewise of poor quality, having a heating value only one-fifth to one-third that of bituminous coal. The location of the deposits is also unfavorable, most of them being in the non-industrial central provinces.

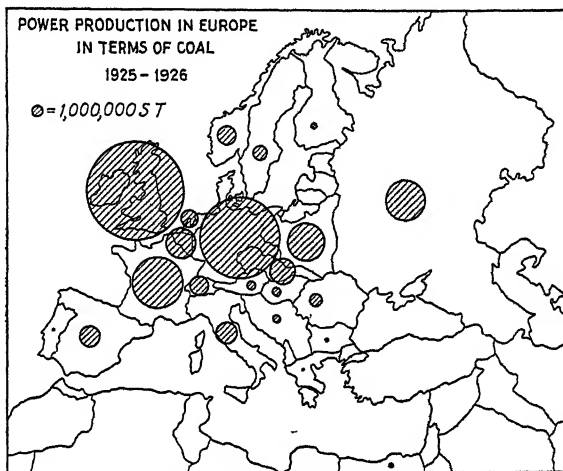


FIG. 301.—Note the importance of the coal-producing countries. Three countries accounted for about 75 per cent of the total power of Europe.

In the case of oil the outlook is even less promising, the production of 5,000 metric tons annually being about one-half of 1 per cent of the nation's consumption.

Water-power Development.—The "silver lining" in the Italian power situation consists in the country's possession of magnificent water-power resources, and her record of hydroelectric exploitation, especially since the war, has been notable (Fig. 302). In the decade following 1914 the capacity of the installed plants was doubled and by the end of 1925 had reached 2,380,000 kilowatts, the actual power produced, meantime, having trebled.

The phenomenal development of water power has failed, however, to diminish the coal consumption. It appears that its increased exploitation has but kept pace with the industrial expansion, and the coal import requirement of some 11,000,000 or 12,000,000 tons must be expected to continue if not actually to increase.

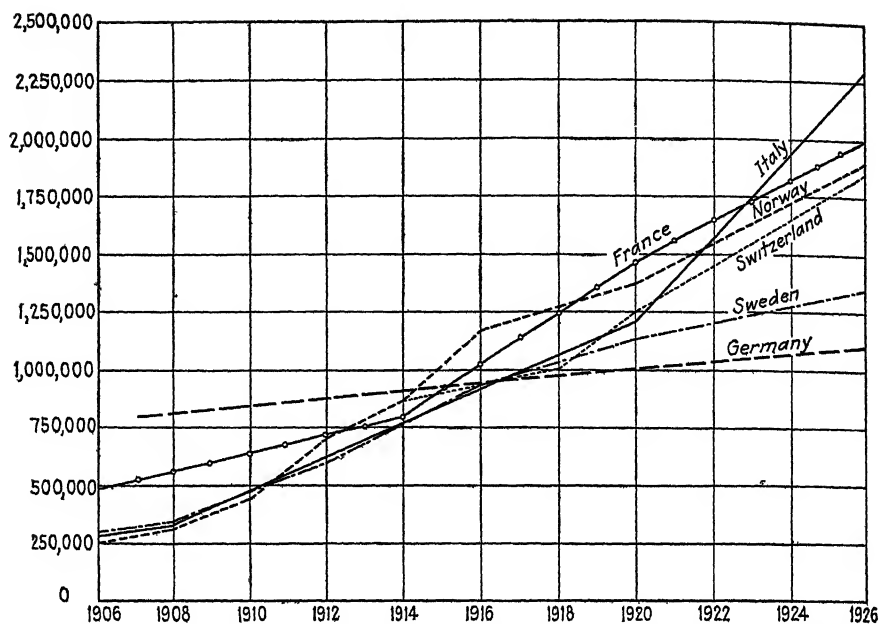


FIG. 302.—The trend in hydroelectric development in selected European countries Figures are in horsepower of installed plants (U S Department of Commerce.)

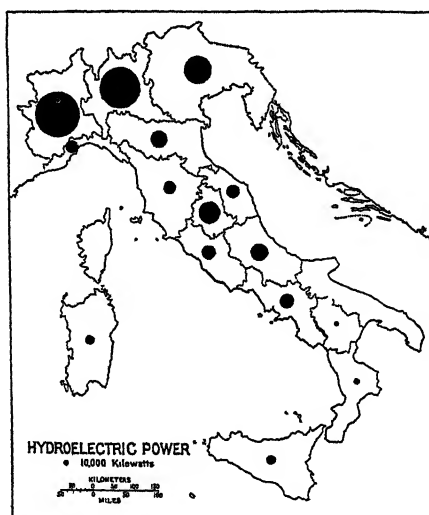


FIG. 303.—Italian hydroelectric power development by provinces including all plants of 300 kilowatts or over each, in 1925

Northern Italy.—Italy's water turbines are about as unequally distributed as are her agricultural activities (Fig. 303). The major share of both is possessed by the north, for here both are related to the Alps. The great fertile plains of the Po are built of alluvium contributed in the main by the Alpine slopes which thus reclaimed what was formerly an arm of the Adriatic. The same streams which changed a waste of

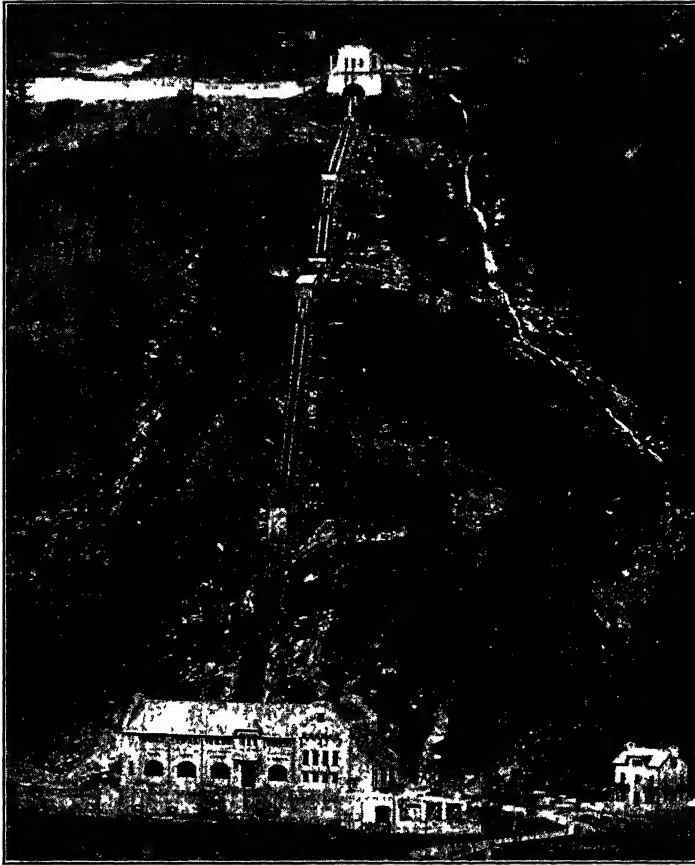


FIG 304.—Grego power plant in the Italian Alps showing gatehouse, flumes, spillway, and power house (Courtesy F X Schaffer, Wien.)

waters into one of Europe's garden spots are today being harnessed to the wheels of industry located on these same plains (Fig. 304).

Obviously the physical setting of northern Italy is peculiarly well suited to the development of hydroelectric power. The height of the Alps is responsible for a heavy precipitation and for sufficiently low temperatures to maintain extensive snow fields and glaciers and at the same time to furnish a high head for the streams. Many moraine-

dammed valleys constitute huge natural reservoirs which serve to equalize the stream flow.

Central Italy.—The northern and central Apennines are less favorable for water-power exploitation than even the poorest of the Alpine provinces. The mountains are lower, there is less snow, and there is a total absence of large lakes or glaciers. Furthermore, the climatic conditions are unfavorable—increasingly so toward the south. Rainfall is scantier, evaporation about twice as great, and the seasonable distribution of precipitation less favorable. Even in the northern Apennines the summer drought is marked. Liguria has the heaviest rainfall and perhaps the largest per capita consumption of electric current of the Italian provinces, yet precipitation is most disconcerting in its lack of regularity. Because river discharge is even less uniform than rainfall, streams are for the most part torrential and short, many becoming dry beds in midsummer. At Genova, for instance, the total rainfall for 1921 was 1,763 mm, the following year, 522 mm.; in 1925, 759 mm.; the following year, 2,017 mm. As a consequence the hydroelectric plants are smaller than in the Alpine region where large streams and fairly even volume justify installations of tens of thousands of horsepower each.

Southern Italy and the Islands—This region has remained largely oblivious to the industrial development of the north. It is essentially agricultural with but few industries requiring power. The small annual precipitation and its more pronounced seasonal distribution provide few streams of value for development. Thus an unfortunate combination of conditions both physical and cultural has served to retard industrial development as it has the modernization of their agriculture.

There are, however, indications of a change, for in the Sila Mountains in the toe of Italy there is being constructed a huge hydroelectric project where will be developed a head of over 3,000 feet with a capacity of 120,000 kilowatts. Much of this power is expected to be used for irrigation projects, and some will be transported across the Straits of Messina to help water thirsty Sicily. The Tirso project of Sardegna, now completed, is expected to do as much for that backward island.

Ironing Out the Energy Curve.—Of the various handicaps to hydroelectric development, lack of uniformity in the flow of the rivers is one of the most serious. This difficulty is, as we have seen, greatest in the south. Three methods of ironing out the inequalities in the discharge curves are commonly used: (1) artificial reservoirs, (2) auxiliary steam plants, and (3) the linking by transmission lines of the regions with different energy regimes. The high cost of coal makes operation of thermal auxiliary plants expensive. They are, however, used to some extent, especially in central and southern Italy, where they make up as much as one-fourth of the total, while in northern Italy they contribute

less than 3 per cent. The use of reservoirs has always been an important feature of Italian hydroelectric development and will naturally become more so as the less desirable projects are exploited.

The variations in the stream discharge curves in different parts of Italy immediately suggest the obvious advantage of connecting the different regions. Thus the power deficiency in the north during the Alpine

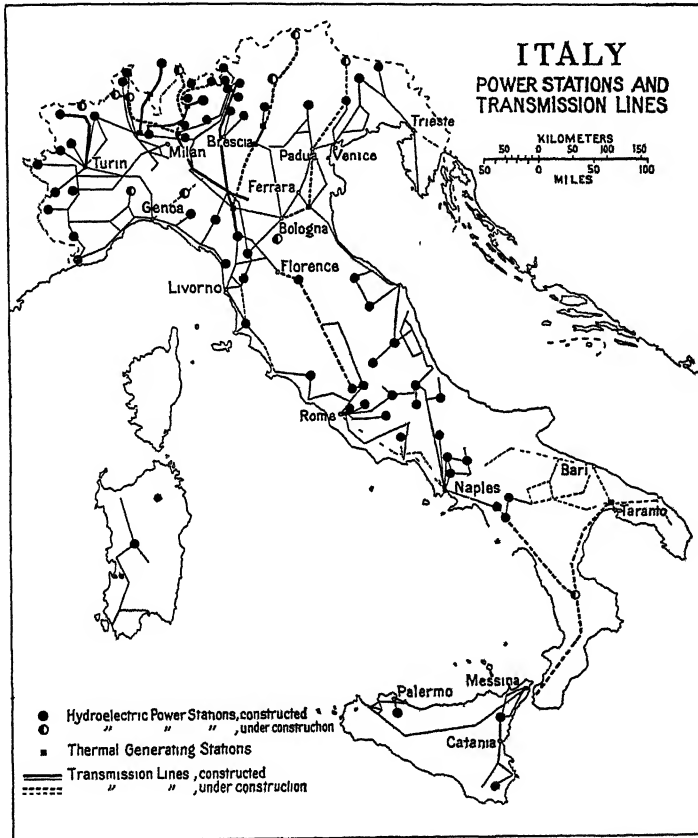


FIG. 305.—The network of transmission lines covering Italy helps to smooth out the energy curve (U. S. Department of Commerce)

winter is being partly compensated for by drawing current from the northern Apennines, which has a maximum precipitation at that time. In the summer the reverse is true, and today Italy may be said to be practically covered by a network of wires reaching from the Alps to Sicily (Fig. 305).

Use of Electric Current.—The greater part of the current produced is used in the mills and factories. In the north emphasis is upon industrial uses; in the south agricultural benefits are sought with land reclama-

tion and control of malaria by drainage as important features of the plan. Electrification of agriculture, other than energy for irrigation pumps and the like, is slow for it must contend with ignorance, conservatism, and cheap labor.

Of the Italian industries, textiles use most electricity. Their use of power in proportion to value of output is not so large as in the metallurgical works, but the small bulk and high value of the finished product makes transportation costs a small item. The growth of metallurgy has been in spite of geographical and economic handicaps, the government subsidizing it as a form of military preparedness.

Trends in Water-power Development.—By the end of 1929 there were 588 hydraulic plants operating in Italy with an installed capacity of 2,300,000 horsepower, the largest of any European country. It is estimated that about two-thirds of her theoretically available power is now harnessed. Installation costs have risen greatly—100 per cent from 1918 to 1925—and it seems inevitable that the development curve must shortly begin to flatten. This change will be hastened as the countries more richly endowed with coal and raw materials recover and competition in world markets grows keener, compelling the country to specialize more and more in highly finished types of goods for her export trade.

THE TEXTILES

The Silk Industry.—Italy is the leading European country in silk production, accounting for about 90 per cent of the total for the continent. Among world producers her rank is third, with only Japan and China leading, though her actual output is small compared with these two countries. Of the world's annual total of 75,000 to 100,000 metric tons of raw silk, Italy supplies but 4,000 to 5,000 metric tons, or about 5 per cent.

Unlike the other textile industries, silk manufacturing in Italy depends almost wholly upon domestic raw materials. Over 90 per cent of the cocoons are of local origin. As in France raw silk production has been placed upon a scientific basis, 1 ounce of eggs normally yields 12 pounds of raw silk or eight times as much as the average in China. The work involved may be judged from the fact that the raising of the worms from an ounce of eggs represents the consumption of almost a ton of mulberry leaves.

The dense population in north Italy is the chief reason for the concentration of raw-silk production there, the Po basin contributing about 90 per cent of the national output. The cocoons are reared in the homes of the peasants and marketed in Milano, Como, Torino and other cities in whose near-by mills the reeling, throwing, and spinning are done.

In spite of the improvements in the industry, silk production in Italy, as in western Europe in general, is on the decline, principally because of the cheaper labor in the Far East but also because a milder climate places the industry on an almost year-round basis.

Raw silk has for some time been the leading export of Italy, the domestic market absorbing only about one-third of the output. In view of her abundant labor supply it would be more profitable to manufacture the textiles before exportation, but her chief markets have a high tariff on manufactured silk.

Rayon.—The outlook for the rayon industry appears to be much more promising. Beginning in 1909, its development, especially since 1922, has been remarkable. In that year it surpassed silk in tonnage; by 1928 its output was over $4\frac{1}{2}$ times as large as the product of the silk worm, and second only to the production of Germany in all Europe. In 1928 50,000,000 pounds were produced, 13.2 per cent of the world's total (Fig. 105).

Unlike the raw silk industry, the manufacture of rayon is entirely a factory occupation and in Italy appears to be on a sound basis. Like the former, it is chiefly confined to the north, where it is favored by cheap water power and abundant labor. Domestic supplies of the important chemicals, *e.g.*, soda and sulfuric acid are available, but unfortunately the attempts to use native poplar have been unsuccessful and dependence must be placed upon imports from Scandinavia and central European countries.

Other Textiles.—The manufacture of cotton fabrics actually uses four or five times as many spindles and employs more workers than does that of silk. The latter, however, plays a much larger role in the foreign trade. The 1928 export of silk and rayon together was over 50 per cent larger than that of cotton. The difference in net returns to the country is even greater, inasmuch as practically all of the raw cotton is imported.

There is a considerable woolen industry, using in part domestic raw materials; a hemp industry, entirely supplied by the local crop; and some jute, the latter depending entirely upon imports for its material.

Apennines Not Highly Mineralized.—Unfortunately the Apennines are almost barren of ore minerals. The quarries of the country employed in 1928 almost as many workers and had an output almost as valuable as all of the mines together. The combined value of Italy's products from quarries and mines is about \$60,000,000, an amount less than the mineral output of New Jersey. At the north Carrara is the center of the famous marble quarries, the purity of whose products makes them highly prized by sculptors the world over. To the south, near Firenze, are Italy's lignite deposits, while at Mount Amiata, about midway between Firenze and Roma, are important mines of mercury yielding about 1,000 metric tons annually. Together with the production

from Idria, in the territory recently acquired from Austria, these place Italy second only to Spain as a mercury producer.

Italy has long been one of the world's chief sources of sulfur, indeed, until the deposits of Louisiana were made available, it was the world's leading producer. Of Italy's output 90 per cent is from Sicilia whose reserves are estimated at from 40,000,000 to 60,000,000 tons of ore averaging about 23 per cent sulfur. This is insignificant compared with the deposits of the United States, and the latter has far outdistanced the Mediterranean island (Fig. 306). The Sicilian deposits have been exploited by primitive methods, have been subjected to enormous royalty burdens, and have been unable to compete with the cheap American product. Modernization of the industry, reduction of royalties, trade agreements with American producers, and government control have all been invoked, but the industry is not flourishing.

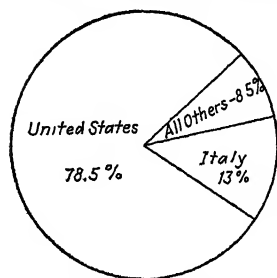


FIG. 306.—World sulfur production, 1928. Italy and the United States are the only important producers. Of the total Italian output, about 75,000 tons (25 per cent) came from the mainland the rest from Sicily.

THE FISHING INDUSTRY

The limitations upon agriculture and manufacturing in Italy are not compensated for, as in Scandinavia, by plentiful fish in the neighboring seas. The lack of a wide continental shelf, of modern technical facilities for catching and marketing the fish, together with the absence of restrictions upon destructive fishing methods have made the catch wholly inadequate even for domestic needs. Italy, of all European countries, in spite of its long coast line, has about the lowest per capita fish consumption—9 pounds as compared with 65 pounds in England—and even then Italy must import large quantities from north European countries as well as from Spain and Portugal.

POPULATION

Emigration.—With a dense population, a fairly high birth rate, and scant agricultural and industrial resources, Italy has resorted during the past half century to wholesale emigration (Fig 307). From the time of the unification in 1870 this exodus had grown until for the single year of 1913, it reached the enormous number of 872,000. The World War, restrictive legislation, and industrial development within Italy have reduced this flood to less than half that figure. From 50 to 65 per cent of the numbers leaving Italy are temporary emigrants. In some cases they leave to work in the harvest, *e.g.*, in Argentina, or in adjacent European countries; in other cases they remain away only long enough to accumulate a modest competence. The New World, particularly the United States and Argentina, attracted the major part of the emi-

grants before the war, but a considerable part of the movement during post-war years has been diverted to France. In 1927 of about 10,000,000 Italians residing abroad, over 8,000,000 were in the two Americas and 1,000,000 in France. Up to 1900 the bulk of the emigrants went from northern Italy; since then they have gone chiefly from the south and the islands. This latter region represents, as indicated elsewhere, the poorest and most backward as well as the most overpopulated part. The majority of them were agriculturists and unskilled day laborers, very poor and illiterate.

In addition to the direct benefit of relieving the pressure upon the nation's food supply, a large number of emigrants sent their savings

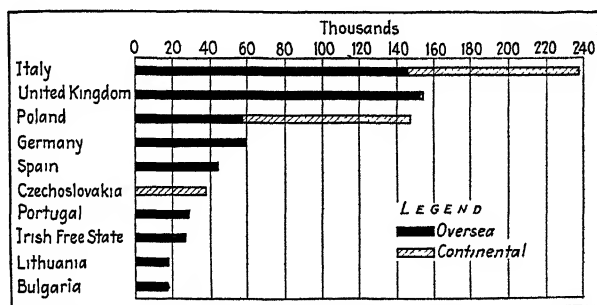


FIG. 307.—Leading countries of Europe in emigration in 1928.

back, while those who returned usually brought their accumulated earnings along. Besides, the large Italian populations abroad constituted profitable markets for exporters familiar with the habits and needs of their countrymen. All in all, the economic gain was large. On the other hand, the movement naturally took the young, strong, and physically fit, leaving the old or less vigorous for carrying on the work at home. Constantly increasing restriction on the part of foreign governments is making the problem of food supply a difficult one. Some relief may be expected from improvement of the agriculture, industrialization based upon cheap labor and water power, exploitation of Italian colonies, and by a decline in the birth rate,¹ but the problem is still an acute one.

FOREIGN TRADE

Manufactures dominate the outgoing goods, raw materials the incoming goods. Thus in 1928 fuels, foodstuffs, and raw materials made up 12 per cent and manufactures 42 per cent of the exports; while for imports the corresponding figures were 35 and 17 per cent, respectively. Textiles accounted for 43.6 per cent of the total exports.

¹ The birth rate dropped from 31.7 per 1,000 in 1913 to 25.1 in 1929.

Imports come largely by sea; exports go chiefly by land. Several reasons help to account for this condition. The export commodities are high in value and small in bulk. They are produced in north Italy and find their chief markets in north Europe. Imports, on the other hand, are bulky and relatively cheap. Thus coal, grain, cotton, and lumber are brought to Genova and other ports, but the raw silk, textiles, and the like move over the Alpine railways. As a consequence there is a marked discrepancy between export and import cargo at most Italian ports, as mentioned above in connection with Genova.

Imports normally exceed exports in value by a large amount, a condition made possible because of the large expenditures by tourists and the remittances by emigrants.

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CHAPTER XXV

THE BALKAN PENINSULA

GENERAL ASPECTS

The Balkan Bridge.—The term "Balkan" has come to serve almost as a synonym for political instability and sectional strife. But though weak politically, these countries occupy a position of unusual commercial and strategic importance, and to this fact is due much of the friction which has retarded their growth socially, politically, and economically.

The Balkan Peninsula differs from the other two great Mediterranean peninsulas in several important respects. Unlike these, it has within it a section of one of the world's great thoroughfares. Both Iberia and Italy are cut off at the north by mountain chains and are terminated on the south just beyond the Mediterranean by desert wastes. The Balkans, on the other hand, are traversed by the great European route extending from the North Sea along natural depressions—the Rhine, Danube, Morava-Vardar, Maritza valleys and continuing eastward over the plateau bridge of Anatolia and Syria to the Mesopotamian Valley, or southward across the Mediterranean to the Nile or Red Sea and thence to Asia. Likewise, the water route from south Russia to the Mediterranean is in reality a Balkan route, *i.e.*, controlled by the power which dominates the Bosphorus-Dardanelles outlet. This thoroughfare is of vital interest to Russia since its great export crops find their natural outlet here as the only available route ice free throughout almost the entire year. Thus as the intersection of the land route to the southeast and the water route to the southwest, the Balkans have become a serious bone of contention among European powers. These latter in turn have viewed them, not so much from the standpoint of the economic development of the countries themselves, as thoroughfares to further their own ambitions. The water interruption to Asia offers an easy passageway. The actual separation is in one place less than that spanned by the Brooklyn bridge; where the gap is wider it is sprinkled with innumerable islands which serve as convenient stepping stones; many excellent harbors line either shore; while the almost tideless sea and clear weather combine to make the "bridge" a real connecting link.

Relief and Routes.—Though all three Mediterranean peninsulas are mountainous, the relief of the Balkans is much more complex than that of the others. Like Iberia it has a core of old crystalline rock, the Rhodope Massive, but this covers only a small part of the whole peninsula.

and the folded ranges with their intervening valleys flank the central core in all directions. As a consequence of this jumble of mountains the peninsula is extremely irregular—surface, coast line, and drainage showing the greatest variety of features

The Balkans may be broadly divided into three major regions: (1) Along the west, and running from north to south, are the Dinaric-Pindus ranges, a continuation of the limestone mountains which flank the south side of the Alps of Switzerland and Austria. (2) To the east of these lies the Rhodope Massive, a triangular plateau whose corners lie approximately at Beograd, Istanbul, and Thessalonike. (3) Between the central massive and the Danube lie the Balkan Mountains, running east-west parallel with the Danube and really an extension of the Carpathian system.

Each of these major physical features is interrupted where the crustal sinking gave rise to the Aegean-Marmara-Black Sea depression, but is again continued beyond these waters. Thus the limestone ranges of the western Balkans find extension in those at the southern border of Anatolia; the Rhodope continues as the plateau of Asia Minor, and the Balkans, as the Caucasus.

Each of these major relief features is flanked on either side by routes which run from the middle Danube to the coast. Thus on the west there are the passes over the Dinaric Range to the Adriatic; between the Dinaric-Pindus mountains and the Rhodope lies the Morava-Vardar; while between the Rhodope and the Balkans is the Maritza; and to the north of the Balkans the lower Danube. Although the coast line of the peninsula is unusually long, the mountainous interior neutralizes this advantage, making access to the sea from many points difficult. It is significant that the Greek railroads were not united with the continental lines until 1911.

Racial Heterogeneity.—The Balkan bridge to Asia consists of a series of defiles separated by mountain barriers. Through these narrow pathways have swarmed, since antiquity, hordes of emigrants from the steppe lands of western Asia. From time to time some of these wanderers, eddies from the parent stream, drifted from the main routes and settled in the various valley pockets. Thus successive human invasions, each overrunning the preceding, have given the region a racial composition as varied as its relief. Greeks, Romans, Goths, Huns, Bulgars, Slavs, Magyars, and Turks have all left their impress.

Because of this great variety of relief and of racial composition, and the fierce enmities fostered by centuries of strife accentuated by the rivalries of the great European powers, the development of the Balkan peoples has been most seriously handicapped. Five independent nations occupy the peninsula as compared with one in Italy and two in Iberia (Fig. 308). Furthermore, within each of these five are elements of dis-

sension so serious that prolonged or close cooperation is practically impossible, at times even within the boundaries of one state. The First Balkan War of 1912 was the only occasion upon which the countries, exclusive of Turkey, had united forces to achieve a common end; but it should be noted that the alliance was short lived and was soon followed by quarrels over the spoils of war.



FIG 308 — Map of the Balkans (Current History)

Limited Resources.—The Balkans are only moderately endowed with natural resources. Mineral deposits are of little significance, forests limited, and the bordering waters not to be compared with those of north Europe in their supply of fish. In spite of the tangle of mountains, agriculture, with emphasis on the pastoral phase, is by all odds the chief interest.

In view of its meager resources the peninsula is greatly overpopulated. The average density is almost as great as in Illinois, a state with a large area of level, highly productive soil, a moderately humid climate,

vast coal supplies, and a highly industrialized area. Needless to say the standard of living is very low, on the average, in the Balkan Peninsula, and will remain low until there is a better balance between utilized resources and population.

YUGOSLAVIA

The South Slav Kingdom.—The kingdom of the Serbs, Croats, and Slovenes is one of the new states organized after the World War. It represents an attempt to reunite the South Slavs who first entered the Balkan Peninsula from beyond the Carpathians in the sixth and seventh centuries. Although originally identically the same people, they drifted into valleys separated by mountain walls, where isolation served, during the many centuries that followed, to develop pronounced differences. Without a strong central government they were an easy prey to various foreign powers. For 1,200 years they have been divided and dominated by various peoples; most of them, at different times and for varying periods, subject to the blighting oppression of Moslem rule. The Turkish yoke was thrown off in the Balkan wars of 1912 to 1913, and with the defeat of the Central Powers in 1918 an opportunity came for union. Serbia as one of the most militant of the Slavic groups and the one with the most intensely nationalistic spirit assumed the dominant position in the new state.

Yugoslavia is the principal state of the Balkans, occupying approximately one-half of the area and possessing about half the population. Although the actual boundaries are largely arbitrary, nearly all of the country lies south of the Drava-Danube rivers and between the Rhodope Massifs and the Adriatic.

LARGER DIVISIONS OF THE COUNTRY

The country is about three-fourths mountainous and is divided into four geographical regions: (1) The Dalmatian or Adriatic Coast, (2) The Dinaric mountain-plateau region, (3) The Pannonian plain and (4) The Morava-Vardar depression.

The Adriatic Coastal Region.—The Adriatic belt is a narrow, much indented coast wedged in between the Dinaric Alps and the sea. Subsidence of this mountainous coast admitted the sea into the lower valleys, leaving the mountain tops as peninsulas and islands (Fig. 309). The latter, long and narrow, lie parallel to the mainland, providing protection for the interior channels. Cultivable land is very limited and is mostly devoted to the vine, olive, and fig. The cold dry wind called locally the "bora" is a disagreeable feature of the winter climate.

Inland the coastal belt is backed by the precipitous escarpment of the Dinaric Alps beyond which lies the inhospitable karst. Naturally the towns have turned to the sea for a livelihood. Fishing ranks next

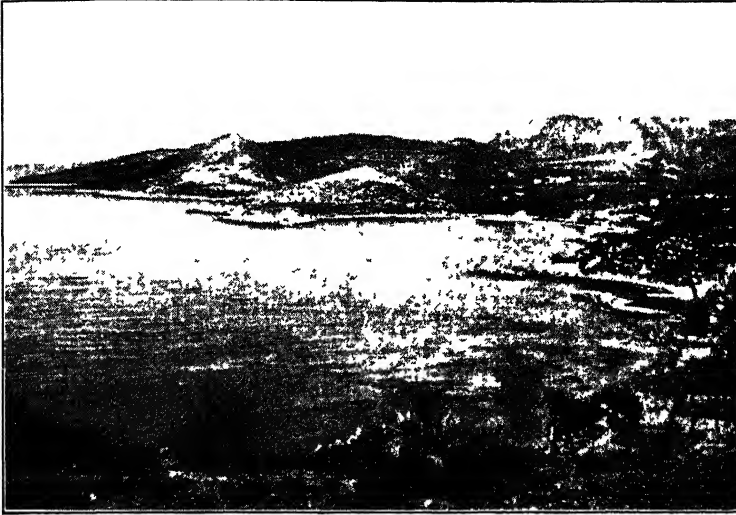


FIG. 309.—A typical view on the Dalmatian coast (Courtesy Geog. Rev., published by the American Geographical Society of New York)

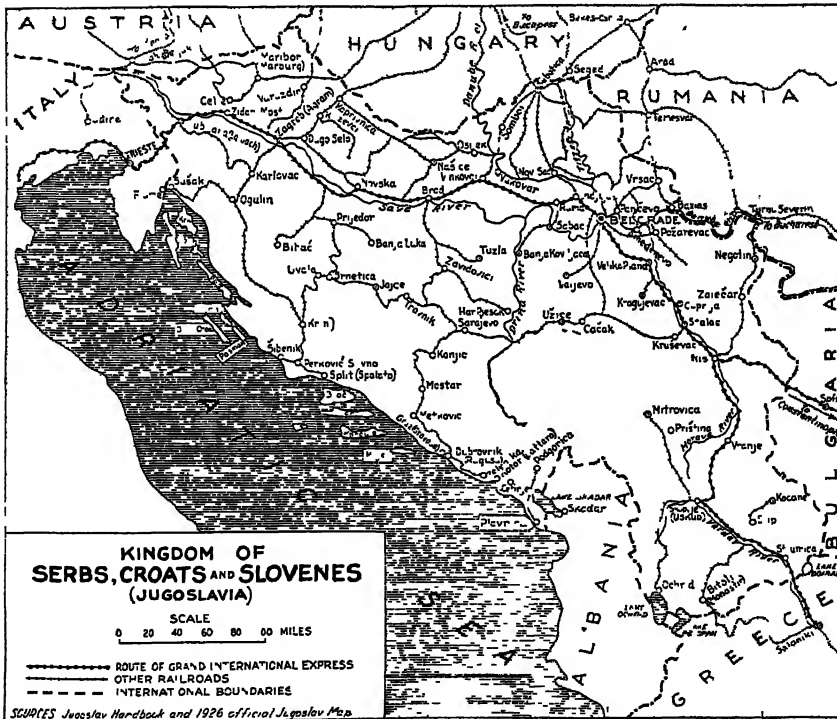


FIG. 310.—Note the main railway network lies in the north and east. Access to the Adriatic is limited. (U S Department of Commerce.)

to the vine in Dalmatia, the catch in 1927 amounting to over 5,000 tons valued at about \$750,000.

In spite of the difficulty of communication with the interior, the Adriatic is Yugoslavia's only coast and is regarded as one of her major gateways for foreign trade (Fig 310). Until recently the only railways crossing the Dinaric barrier to this stretch of shore line were the standard gage lines from Zagreb to (1) Susäk, (2) Trieste, and (3) Split and a difficult narrow gage from Brod to Zelenika on the Bay of Kotor (Cattaro) or to Gruz (Gravosa) on the Sara River. Though Fiume, the natural outlet of the north and a port well equipped to care for all the reasonable needs, was lost to Italy, Susäk, a suburb with Port Baros, was retained by Yugoslavia, as well as a long-term lease of the Thacon di Reval harbor. Like Poland, however, Yugoslavia dislikes dependence upon foreign ports and has energetically set herself the task of developing a port of her own at Split, now the leading port of the country, and another at Kotor. Susäk will probably remain important for lumber exports; Split, to which the railroad has been completed, will handle general cargo, while Kotor in addition to its splendid naval harbor, will, when joined by rail with the interior, become another commercial outlet. Meanwhile Fiume, with better natural advantages than any of the others, seems destined to decline, because of the frontiers shutting out the natural hinterland. Italy is less concerned with that fate, however, than she was with what the port might do to Trieste if in foreign hands.

The Dinaric Region.—The dominant topographic feature of Yugoslavia is the great belt of mountains and plateaus—the Dinaric Alps—which occupy the western half of the country. Lying between the much indented Adriatic coast, with its innumerable well-protected harbors, and the rich agricultural basin of the middle Danube, this highland is a most formidable commercial barrier.

The main ridges trend northwest-southeast, parallel to the Adriatic coast, and, while not very high, there is a singular lack of transverse valleys to join the interior lowlands to the sea. Furthermore, the western edge is an escarpment which drops abruptly to the Adriatic. The western portion of this highland zone is a region of karst topography best developed in the north, but to be found in a modified form throughout the entire length of the Dinarics, making connection with the interior extremely difficult.

Although the precipitation is moderate, in places reaching 60 inches, the drainage, typical of karst regions, is largely underground, so that much of the surface is bare dry limestone. In the north the region is pockmarked with sinks; toward the south, where there is less limestone, the depressions are larger with their bottoms often covered with fertile soil (Fig. 311). These are agricultural oases, though wet at least part of the year they are likely to suffer from drought. They are steep walled,

hard to enter or to leave, and the people who use them usually live on the outer rim, free from danger of flood. Their chief use is for hay and pasture. Inland from the karst country, the highland is much more productive with fertile valleys and excellent forests. Pastoral industries predominate, although cereals, especially corn, are raised.

In general the Dinaric highland is the least productive and the most sparsely populated section of Yugoslavia, while its mountain barriers constitute the most serious geographical handicap of the country. It is narrowest and lowest in the north, making possible the joining of Fiume with Beograd. Southward the highland broadens, the rivers

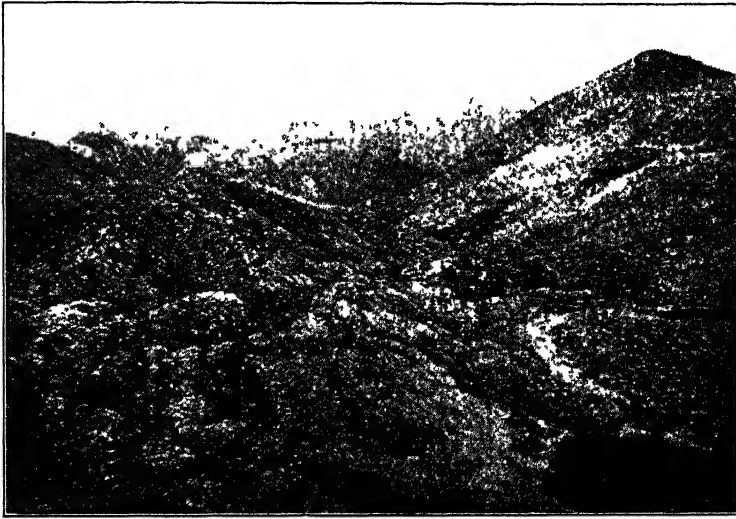


FIG 311.—Typical karst topography in Yugoslavia (Courtesy *Geog. Rev.*, published by the American Geographical Society of New York.)

flow through tortuous gorges, and isolation and poverty have made the mountaineers backward and primitive.

The Pannonian Basin.—On the north Yugoslavia includes a portion of the great Hungarian Plain. Here in the valleys of the Sava, Drava, Danube, and Tisza—a region embracing about one-fourth of the entire kingdom—is the most productive and the most densely populated section. Yugoslavia is almost exclusively an agricultural nation and here is its chief farming area. Not only is it the region of the greatest plains and the richest soil, but the level topography and the large rivers make transportation by land or inland water comparatively easy.

The chief crops are similar to those of adjacent Hungary, except that corn is of greater importance than wheat and is a staple article of diet for both men and animals. Cereals occupy 80 per cent of the cultivated land, rye and barley being sown where the soils are too poor

for wheat and corn. Prunes for export, as well as for jam and brandy, are raised in large quantities. Live stock, especially the rearing of pigs on the wooded hills, ranks second to crop raising, and for the nation as a whole, animal products supply one-third of the country's exports.

In proportion to its area Yugoslavia's agricultural output is not large. It has the largest proportion (23.7 per cent) of unproductive land of any of the Danubian states; likewise, with the exception of Austria, the lowest proportion of cultivated land. In spite of this, agriculture supports over three-fourths of the population.

Agrarian reform has had two problems with which to contend—

(1) the tenure of the larger states, chiefly in those sections formerly belong-



FIG. 312.—The Varder Gorge through which passes the branch of the Oriental Express which runs south from Nis to the Aegean at Thessalonike (Courtesy *Geog. Rev.*, published by the American Geographical Society of New York)

ing to Austria-Hungary, and (2) the abolition of feudal practices which still existed in some parts of the country. The equalization of holdings accomplished thus far has actually increased production, though yields per acre for the country as a whole leave much room for improvement. Intensification of agriculture, the shift from cereal production to horticulture and live stock, and the extension of industries for working up the agricultural raw materials into more finished forms are avowed policies of the government in its program of reconstruction.

The Morava-Vardar Depression.—All of the great land routes from western Europe to the Near East cross Yugoslavia, so that there is considerable transit trade as well as that destined to or from the country. Of these great routes, the one leading from the Danube at Beograd

southward through the Morava-Vardar trench is second in importance only to the Beograd-Nish-Istanbul route. The former lies between the Rhodope Massive and the Dinaric-Pindus ranges. Its commercial value to the country is emphasized by the difficulty of access to the Adriatic over the Dinaric-Pindus highlands on the west and the great length of the route down the Danube to Istanbul or to inland seas.

Unfortunately for Yugoslavia, the lower portion of this depression, together with the Aegean port of Thessalonike, is in Greece. The latter has granted a free port on the harbor, however, as well as joint control over the railway from the frontier to tidewater, so that Yugoslavia's outlet to the Aegean seems reasonably secure.

In addition to its value as a great thoroughfare, the Morava-Vardar Valley is an important agricultural section. The lower Morava is an extension of the cereal and fruit region of the Hungarian Plain. Pastures on the lower slopes, and oak and beech forests on the upper, provide feed for swine. Along the upper Morava there are a series of basins originally lakes and exceedingly fertile, such as Nis and Skoplje (Uskub). The divide between the Morava and the Vardar is very low and southward toward the Thessalonike Plain a Mediterranean climate is more and more in evidence with tobacco, mulberry, vine, and even rice as staple crops. The mountains serve as summer pasture for the herds of the plain. In general the Vardar section is little developed agriculturally though potentially rich. Political disturbances have been the chief obstacle to its better utilization.

MINERALS AND POWER

Minerals and Water Power Little Exploited.—Yugoslavia is known to possess deposits of a great variety of minerals, yet the total output, except that of coal, is insignificant, and the industry ranks fourth in importance after agriculture. The South Slav is a farmer, and mining is left to foreign enterprise. As in the case of the forest industries, poor transportation facilities effectually restricted the exploitation of mineral deposits. About 4,500,000 tons of coal, mostly of low grade, are produced from mines scattered throughout the kingdom, the richest ones being in the north. The output is insufficient for local needs even though the country is distinctly non-industrial. Some ores of iron and copper are exported, but the amount is negligible.

Yugoslavia has estimated hydraulic resources of 3,000,000 horsepower—that is, one-fifth larger than is possessed by industrial Switzerland—yet the latter has developed over ten times as much as the Balkan state. Most of the 180,000 horsepower now developed is used for saw-mills. The possibilities for further utilization are large but they must await foreign capital and better transportation facilities.

FORESTS

Forests, a Valuable Resource.—One-fourth of the area is forested, mostly with deciduous trees, and the timber industries represent about a third of the country's capital invested in manufacturing. Much wood is used for fuel, and structural timber and lumber are exported to the extent of about one-half of the total output. Lack of transportation seriously restricts trade in such a cheap bulky commodity and greatly hampers the development of the industry.

ECONOMIC AND POLITICAL DIFFICULTIES

Problems.—The union of the various branches of the South Slavs brought with it a series of political and economic questions which have proved exceedingly difficult of solution. With 85 per cent of the inhabitants Serbs, Croats, or Slovenes there is not the serious problem of a large alien population. Cooperation among the various component groups, however, has been distinctly lacking. Fourteen hundred years during which the various groups have been associated with different states, with political, social, and economic progress unequal and along different lines, have developed varying stages of culture and greatly retarded unification. Differences in local political systems, in methods of taxation, in systems of land tenure, in literacy, are only a few aspects of the problem of coordination of political machinery. In addition much of the country has been overrun and devastated so that there is the added burden of economic rehabilitation.

Besides internal dissension, the country has had serious international controversies with Italy over the possession of Fiume, with Bulgaria over Macedonia, and with Greece over the free Yugoslavian port at Thessalonike. Unquestionably the pathway of the new nation has been a rough one.

Among the economic problems which bulk large in the future, transportation is of primary importance. Until 1918 the territory now comprised in the kingdom was under six different governments, and such railways as had been constructed were made to focus at as many different points. In spite of the country's advantageous position with respect to transcontinental routes and its possession of considerable coast line and frontage on navigable rivers, its railway system is one of the most poorly developed of any country of Europe. Although Beograd, the capital, possesses a highly favored position upon which water and land routes down the Sava, Drava, Danube, and Tisza converge, until very recently to go by rail from Beograd to Panevevo on the opposite side of the Danube, only 9 miles distant, required a journey of 360 miles.

Foreign Trade.—Yugoslavia is primarily an exporter of foodstuffs and an importer of manufactures. Furthermore, its exports are raw, not prepared; its imports, highly finished. In 1926 agricultural and pastoral products made up over one-half of the export value, corn being the largest single item, while the most of the balance of export commodities consisted of forest and mineral products; textiles and machinery furnished the bulk of the imports. Most of the foreign trade is with Italy, Austria, and Czechoslovakia, countries with a considerable industrial output.

ALBANIA

A Backward Country.—The northern part of the Pindus Mountains is occupied by Albania, a country about the size of Switzerland, but with a population hardly one-fourth as large. Extremely rugged, it is one of the least accessible and one of the least known regions of Europe. The coast, a rising one, in contrast with that of Dalmatia, is characterized by lowlands, marshy and malarial. The harbors are little more than roadsteads, Valona being the best. The Drin Valley in the north separates the Dinaric and Pindus Mountains, forming one of the few gaps leading inland from the Adriatic.

Turkish misrule added to topographic conditions has served to keep Albania one of the most backward states of Europe; indeed Albania is more of a territory than a nation. The people are for the most part illiterate, still maintain a tribal culture in the north and east, and have successfully resisted assimilation by the various states which have in turn sought control of their country. Possessed of a high degree of pugnacity, each individual Albanian is said to be a "walking arsenal," a law unto himself. They are an agricultural and pastoral folk, self-sufficing to a high degree and with a negligible foreign trade. Indeed, until the World War, the country did not have a railroad or even a good highway, trails and pack animals serving for the small amount of transport carried on.

As an independent country, Albania has had but a brief and precarious existence. It was created a sovereign state in 1913 by the powers at the instance of Austria, who wished thus to block Serbia's attempt to acquire frontage on the Adriatic. Her independence was again recognized in 1920 by admission to the League of Nations, yet the state is too weak to assert itself and as a buffer between the three rivals, Yugoslavia, Greece, and Italy, seems likely to be absorbed by one or more of them. Indeed, Italy has already through loans, concessions, and commercial treaties secured what practically amounts to a protectorate over the country, as well as possession of the island of Saseno at the entrance to the harbor of Valona. Her efforts to control Albania are a part of her general policy of attempting to make the Adriatic an Italian lake.

GREECE

A Land of Islands and Peninsulas.—Unlike the other Balkan states Greece is not a compact territory nor one so largely dominated by agricultural interests. Her lands are insular and peninsular to an extraordinary degree, so that maritime activities, while subordinate to the agricultural, play a considerable role in her national economy. Though possessing an area of 50,000 square miles with a population of some 6,000,000, no part is more than 85 miles from salt water and the large cities and the great bulk of the population are disposed about the margins within easy reach of the sea.

Belonging to Greece are the Ionian Islands on the west and approximately 300 islands in the Aegean. Most of these, being peaks and ridges of partly submerged mountain chains, are very rocky. The Dodecanese and Rhodes are occupied by Italy, but Kriti (Crete) a Greek possession, occupies a strategic position across the open end of the Aegean Sea. Although the third largest island of the Mediterranean, Kriti's agricultural resources are restricted. A limestone mountain range traverses its entire length and two-thirds of the area is barren stony waste.

Recent Political Readjustments.—Modern Greece is but a century old, dating from independence won in 1829, after some four centuries of economic and political servitude to the Turk. This century of freedom, while one of considerable progress, has also been one of turbulence. Its present territorial extent is largely the result of the two Balkan wars of 1912 to 1913 and the World War of 1914 to 1918. A brief but disastrous conflict with the Turks in 1922 was terminated by exclusion of the Greeks from Asia Minor and by an agreement with Turkey and Bulgaria to interchange their nationals on a comprehensive scale. This was carried out in 1922 to 1924, when 1,400,000 Greeks, mainly from Asia Minor but also from Bulgarian Macedonia, were returned to Greece, while 480,000 Turks and 200,000 Bulgarians from Greece migrated to their respective countries. The exchange has been, especially for Greece, a costly project and one bound to work great hardships. It has, however, given the country a more homogenous character while the energy and skill of the refugees have greatly stimulated agriculture and industry.

Relief.—Physically the country includes (1) the southern extension of the folded limestone ranges bordering the eastern Adriatic, (2) the lower Vardar depression (southern Macedonia) and (3) the southern portion of the Rhodope Massive.

Western Greece is dominated by the Pindus Mountains whose folds trend northwest to southeast. Crustal sinking has submerged the lower valleys, leaving the intervening ridges as peninsulas and islands. One such depression, the Gulf of Corinth, almost severs the southern from the northern portion of the country.

Likewise in the east, Greece now extends to the Maritza and includes in western Thrace the southern part of the Rhodope Massive. Here again, the adjacent Aegean waters now stand above a part of the old block which foundered, portions of which not yet submerged form scores of islands.

Between the Pindus and Rhodope lies the lower Vardar depression. This plain and that of Thessaly are the two most extensive level tracts in Greece. Many valleys, widely scattered and of small size, are to be found. They are generally isolated by enclosing mountains, providing ideal conditions for the development of the city-states of old Greece. Coastal plains are uniformly narrow or even often absent.

Agriculture.—Without important mineral or forest resources, Greece must depend upon the soil and the sea. In spite of a mountainous surface and a maritime position, the country is preeminently agricultural, three-fifths of the population depending upon crops and herds for support. Yet conditions both physical and economic have served to make the annual harvest a meager one.

Only one-fifth of the total area is cultivable while fully three times that much is occupied by mountains, almost barren. Centuries of deforestation without replanting have, as in Italy, been accompanied by the usual consequences of wood shortage and soil erosion, while malarial swamps occupy the lower courses of streams that have become choked with sediment. Not only were the mountains denuded for the sake of the timber, but sheep and goat herders burned large tracts to improve the pasturage (Figs. 313, 314). Overgrazing, summer drought, and the lack of any conservation program have given Greece, of all the Balkan states, the lowest percentage of forest in proportion either to total area or to population.

Even within the lowlands much land potentially cultivable has lain waste or been used only for grazing. Several factors share the responsibility for this condition. The Greek is by nature a sailor and a trader rather than a farmer, and almost one-half of the population is urban. For centuries, wars, both civil and foreign, coupled with the oppression of foreign domination, have discouraged the growing of crops. The valleys have been the highways for marching armies and the rural dweller has had to take refuge in the mountains with his flocks and herds. Macedonia, potentially one of the richest of Greek regions, has been so long a battle ground that much that should be thriving fields is now but barren waste.

Yields have been exceptionally low even though the soil in places is particularly adapted to specialized crops. The returns per acre of wheat, the chief cereal, are only two-thirds those of Bulgaria and are the smallest of any of the Balkan states. Agricultural methods are primitive, little fertilizer is used, and irrigation is neglected. Most of the produce is for

domestic consumption, and, before the influx of refugees, about one-half of the cereals for local needs had to be imported. In general the rough

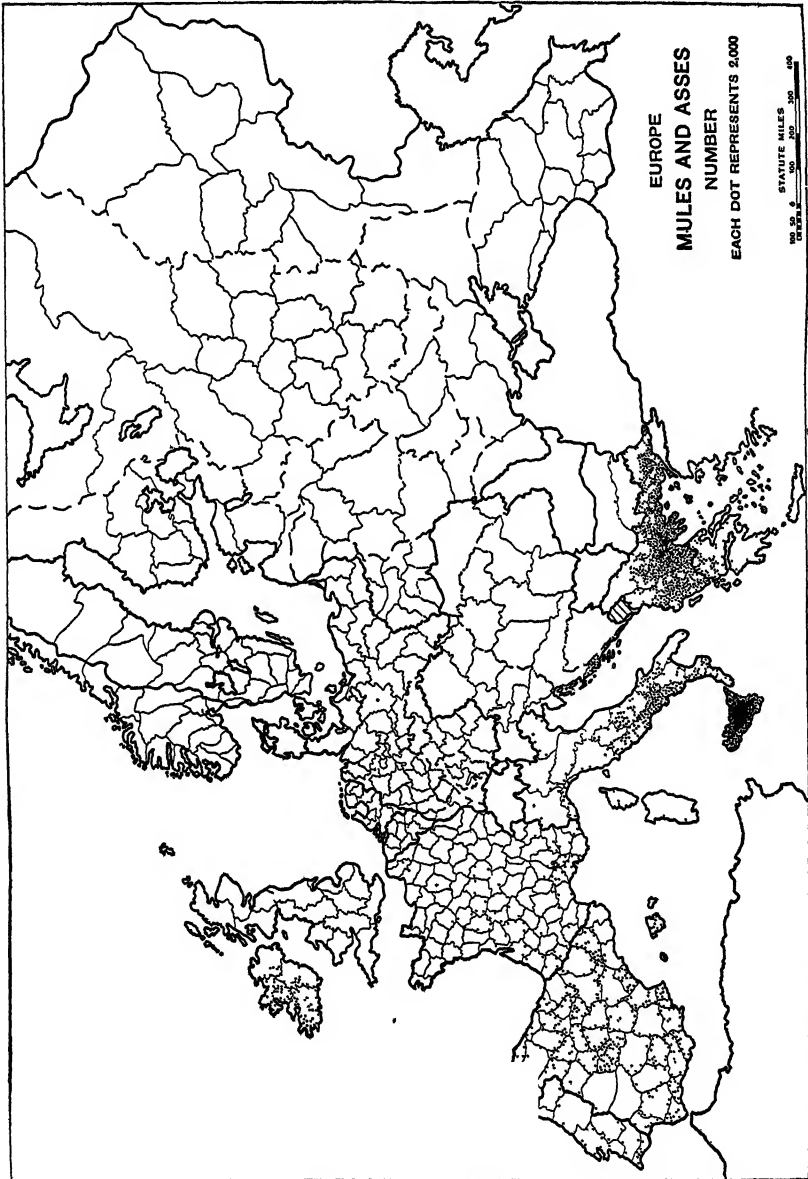


Fig. 313.—The Mediterranean border lands of summer drought and scanty pasture are better suited to the hardy mule, ass, and ox, than to horses (U S Department of Agriculture)

topography and the Mediterranean type of climate which prevails over most of the country, favor tree and vine crops and Greece ranks next to Spain and Italy in olive-oil production. Agricultural exports are

confined to tobacco, currants, olive oil, and wine—semiluxury commodities which in recent years have had difficulty in finding foreign

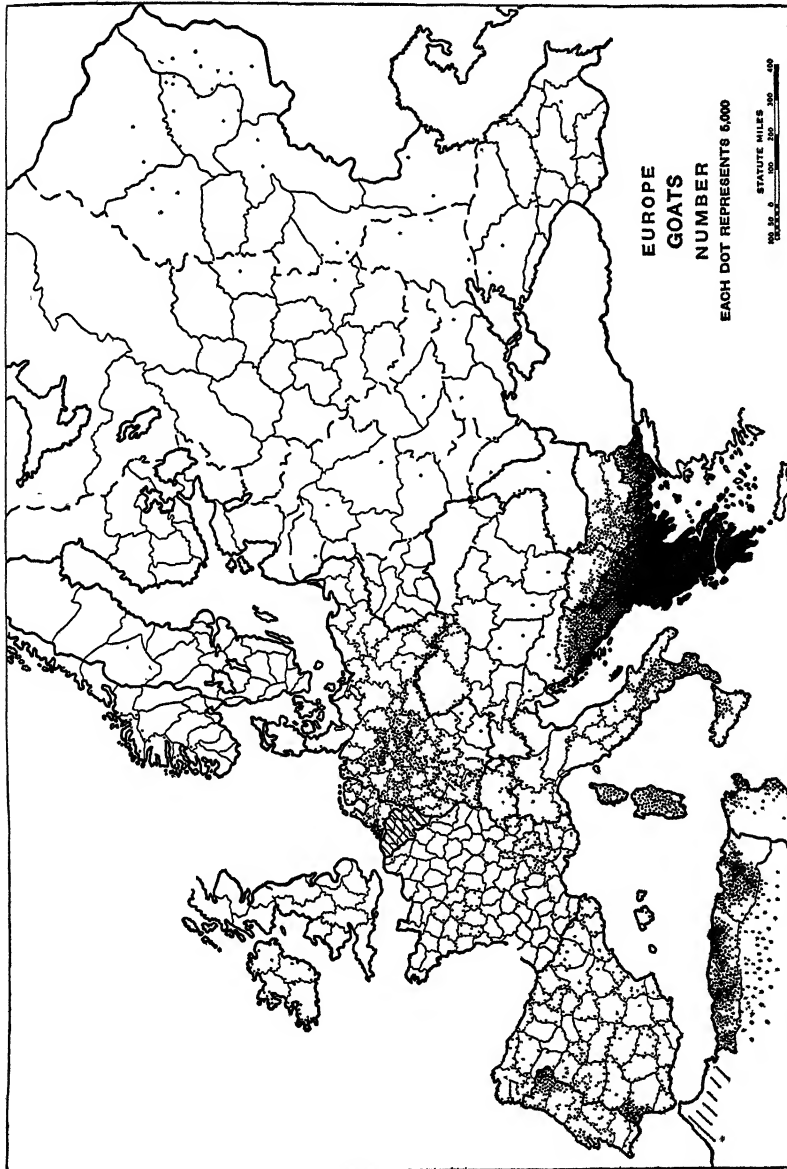


FIG. 314.—The goat thrives where less hardy animals would starve. The scant pasturage and mountainous surface of the Mediterranean lands, especially the Balkans, account for the densest goat population of Europe. (*U. S. Department of Agriculture*)

markets. Tobacco is the leading export with a value two or three times that of currants. Of the production of the latter Greece up to 1914 enjoyed practically a world monopoly. The principal areas of culture

lie along the western and northern coasts of Peloponnesus and on the Ionian Islands with Patras as the chief port. The increase in output and the growing competition of other countries have made legal restriction of output and export necessary.

Pastoral interests, especially goat raising, are important in this rocky land of scant rainfall. Greece ranks lowest among Balkan states in the per capita ownership of sheep, cattle, and pigs, but has the densest goat population of any country in the world, with as many as the other three states together, and three times this proportion of mules though but few horses.

Given peace and political stability agriculture will undoubtedly modernize. The establishment of a vast number of refugees in Macedonia and western Thrace is necessitating the cultivation of much waste land with extensive reclamation work. One such project underway involves the restoration of about 800 square miles of the Thessalonike Plain, *i. e.*, the lower Vardar basin. Not only is this expected to provide fertile farms for some 25,000 refugee families, but it will aid in eliminating malaria, with which many Greek lowlands are afflicted. By giving a more decidedly Greek character to the population it may, also, help solve some of the political problems of the territory and thus pave the way for more rapid development.

Industry.—Of manufacturing, other than the preparation of her agricultural products for marketing, Greece has practically none. Without important raw materials or power resources and with restricted transportation facilities, industries have necessarily remained of the simplest type. The manufacture of tobacco, wine, olive oil, raw silk, and currants will continue, and even in these there is much room for improvement. Greek olive oil and wine are handicapped in competition in the world markets by reason of the "rough and ready" preparation methods.

Transport.—Greece shares with the other Balkan states that lack of internal transportation and communication which has so restricted their development. But, unlike some of these countries, she has had the sea, and since the populous centers are on coasts and headlands, the intervening water has served as a substitute for roads and railroads. Partly as a consequence of this condition the country has the smallest mileage of railway per 1,000 population in Europe but ranks among the leading countries of the world in per capita merchant marine.

Within her territorial limits is included the lower portion of the Vardar-Maritza Valley, a route of great international interest. The Oriental Express connecting western Europe with Istanbul has a branch from Nish to Thessalonike, finding the Morava-Vardar most convenient for this important short cut to deep waters (Fig. 312). This trench between the Rhodope Massive and the Dinaric-Pindus ranges, besides being of strategic interest for western and central Europe, is of special

concern as an outlet for Hungary, Albania, Yugoslavia and western Bulgaria. Thessalonike as the terminus of the Morava-Vardar line, is inevitably one of the great ports of southeastern Europe. Its importance as an outlet for Yugoslavia has led to a special arrangement whereby that country has been given certain privileges mentioned elsewhere. In addition to the Yugoslavian port concession, Greece had also established a free port there, a feature of particular interest to western Bulgaria.

A somewhat similar situation prevails in the east where the Maritza Valley affords a natural outlet for eastern Bulgaria to the Aegean. Negotiations are still in progress between Greece and Bulgaria providing

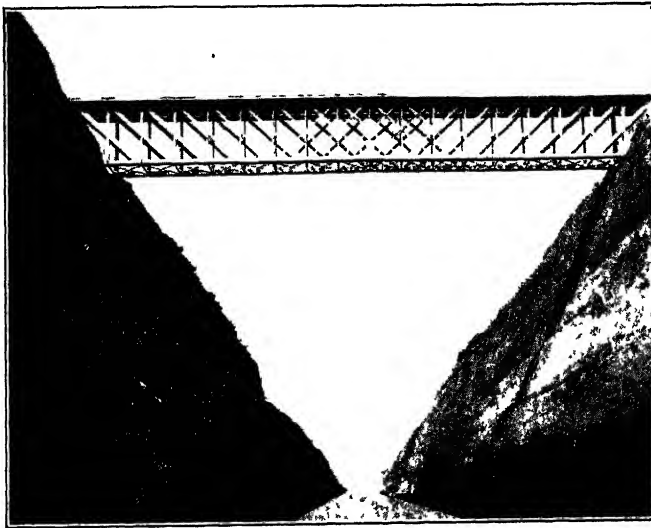


FIG 315—Bridge over Corinth Canal. The narrowness of the canal and the rapid currents which pass through it limit its commercial use. (*U S Department of Commerce*)

for such an outlet. Neither Dede Agach at the rail terminal near the mouth of the Maritza, nor Kavola farther west has a good natural harbor, yet the former is the main port, since Enos at the mouth is subject to shifting sand bars.

The Gulf of Corinth reaches within 4 miles of the Aegean and in the olden days ships were carried across on a tramway. Repeated attempts to cut a canal across the isthmus were finally successful in 1893. Its narrowness (only 52 feet) together with the swift current makes it available only for small vessels. Although in 1920, about the same number passed through it as transited Panama, their size averaged far below the latter and until widened it will not constitute an important factor in Mediterranean trade (Fig. 315).

Tourist Attractions.—Greece possesses in her ancient ruins a historic and artistic interest which is an asset of no mean importance. Though

as yet less accessible and less patronized than those of Italy, the country nevertheless benefits by a considerable tourist traffic. Athenai, the capital with its Acropolis as the center about which much of Greek history has focused, is the point of greatest interest. It is a city of about 500,000 situated at the edge of higher ground some 6 miles from the swampy coast. Piraeus, its port, is the largest one in Greece, while Thessalonike, the outlet of the Morava-Vardar route, and Patras, the chief currant exporting point, are other ports of importance.

Trade.—Geographical position and the maritime and trading instinct of the Greek people, together with the mountainous character of their homeland, have turned them to trade and commerce. Shipping ranks next to agriculture in importance and Greek ships and sailors are found in every port. The earnings from this source add an important item to the correction of a normally unfavorable trade balance. Difficult economic conditions have induced a large exodus to other countries, especially to the United States, and Greek emigrant remittances constitute no small addition to the country's assets, sometimes reaching \$40,000,000 in a single year.

BULGARIA

A Smaller Bulgaria.—At the opening of the World War, Bulgaria was the leading Balkan nation. In contrast to land-locked Serbia she had twice the area of that country and half again the population, as well as valuable commercial outlets on the Aegean and Black seas; today, as a result of unwise leadership and an exaggerated chauvinism, Bulgaria is, with the exception of Albania, the poorest of the Balkans in area, population, and prestige. Not only is the country left with diminished natural resources and opportunities, but her heritage of international illwill makes amicable relations with her neighbors difficult. The contraction of her boundaries has been accompanied by a large immigration of Bulgarian refugees from the lost territory. This floating population of malcontents has greatly increased the difficulties of her situation both domestically and internationally.

Climate.—The climate of the northern half of the country is rather continental, marked by cold winters and hot summers. The Maritza Valley, however, protected from the cold north winds, has a modified Mediterranean type of climate. For the country as a whole the rainfall is rather light, ranging from 20 to 30 inches.

Natural Regions.—Physiographically the country includes three different types of regions: (1) the Rhodope Massiv in the south, (2) the valley of the Maritza between this, and (3) the Balkan Mountains and the foreland running from their crest to the Danube. The general trend of physical features is east to west, and in this direction, therefore, run the major transportation routes.

1. *The Rhodope Massive* is the least important of the regions, the most obscure and backward. It is dissected by gorgelike valleys cut by torrential streams. Originally forested with beech and oak, unrestricted cutting has destroyed much of the timber and thus further impoverished a region already poor. Nevertheless, Bulgaria still ranks among the leading half dozen European countries in the area of forest in proportion to population.

Agriculture is the chief occupation, cereals being raised in the valleys and live stock on the uplands. Ignorance, isolation, and poverty have kept this region the least progressive of an agriculturally backward nation. The population is sparse with no cities and only a few scattered villages. The inhabitants are of the hardy mountaineer peasant type, largely self-sufficing and having but few contacts with the outside world.

2 *The upper Maritza Valley* is, in many respects, the section of Bulgaria best developed agriculturally. Here are to be found a fertile soil, the most valuable products, the best transportation facilities, and, in consequence, the largest cities of the country. A small ridge—the Anti-Balkans—runs parallel to the Balkans dividing the valley into two parts. The northern is often referred to as the Inter-Balkan Valley, or the Vale of Kazanlik, the southern, as the Plain of Plovdiv. Topographically and climatically this region offers a marked contrast to the upland sections of Bulgaria. The Vale of Kazanlik is especially well favored climatically and has become famous as “the rose garden of Europe.” Here is produced the well-known attar of roses, the distillation of an ounce of which requires from 3,000 to 5,000 times its weight of rose petals. Wheat, corn, tobacco, wine, and raw silk are also staple products.

3. *The Balkan Foreland*, the home of the greater part of the population, is a low plateau covered with steppe vegetation, sloping gently northward to the Danube. The rivers have cut such deep gorges in its surface that they are not only of little use for irrigation or transportation routes, but in fact serve to obstruct the east-west movement. The soil is fertile but lies on a porous limestone so that it dries out quickly, resulting in frequent droughts

A portion of the great cereal belt of the lower Danube Valley, it is the region of grain surplus, especially wheat and corn. In general the latter is grown in the moist valleys, the wheat on the higher land and sheep and cattle on the uplands. Toward the Black Sea the climate is more moderate, favoring the growth of tobacco and the vine, the former constituting the country's chief item of export.

Transportation Facilities. *Outlets to the Black Sea.*—The natural outlet for the surplus grain is the Danube, which is navigable for boats of 7 feet draft, but which is blocked by ice for 3 months out of each year. Ruschuk is the chief Danubian shipping point, the grain being

transferred at Galatz onto Black Sea vessels, while Varna and Burgas on the Black Sea are of secondary importance.

Except for the Danube on the northern boundary, the rivers of Bulgaria as a whole are of little commercial importance. Their courses, originally directed to the Black Sea, have been changed, by the uplifting of the coast, either to the north or the south, minimizing their value as commercial routes. Thus the Danube has been deflected northward, the Maritza and Tunja southward. With the loss of both Thrace and the

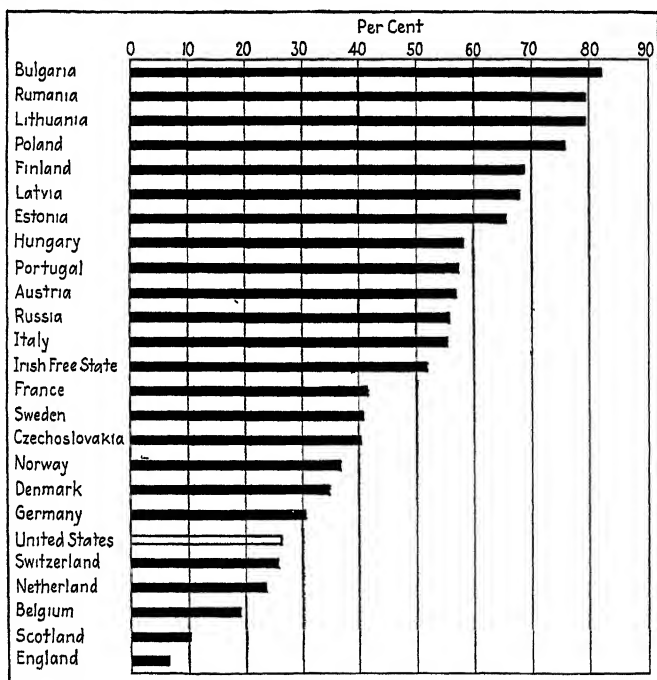


FIG 316.—Percentage of population of various countries engaged in agriculture and fishing. Note the change as one goes from southeastern to northwestern Europe (Data chiefly from *International Statistical Yearbook*, 1928)

Dobrudja, the mouths of Bulgaria's chief rivers have been placed outside her boundaries.

Aegean Outlets.—Although the country lost her frontage on the Aegean, she was guaranteed an economic outlet through Greek territory. Free transit privileges with port facilities at Dede Agach are hers if she wishes to avail herself of them, and Thessalonike has a free port giving access to the sea to both Yugoslavia and Bulgaria. The full utilization of these facilities will, however, be realized only when the ill feeling between these countries gives way to friendly cooperation.

Agriculture.—Agriculture is decidedly the mainstay of Bulgaria, to even a greater extent than in the other Balkan states. Eighty-four per

cent of the population are dependent upon the soil—the highest percentage of any European country (Fig 316). About one-third the area is cultivable, and 28 per cent in forest. The Bulgar is a hard-working, patient, but ignorant and conservative farmer, using primitive methods and securing yields which are unnecessarily low. Irrigation, crop rotation, and fertilization all offer possibilities for greatly increasing the production. The question of land tenure, so vexing in neighboring states, is here of little consequence, since few large estates exist, the holdings rarely exceeding 15 or 20 acres, and these already in the hands of the peasants themselves.

Sofia, the capital of Bulgaria, lies in a small basin close to the western frontier, marking the intersection of several important trade routes. It is on the main transcontinental line from Beograd and Nish to Plovdiv and Istanbul. In addition, it communicates via the Isker northward to the Danube Valley and southward to Skoplje, but the latter has no railway beyond the frontier. Plovdiv is the second city of the country in size and an important agricultural center.

With but scanty resources in minerals and water power, Bulgaria is among the least industrialized countries of Europe; even the old household handicrafts are disappearing before the importation of cheap factory-made goods. A little lignite and some copper are mined, but their value is almost negligible.

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CHAPTER XXVI

MEDITERRANEAN ASIA AND AFRICA

TURKEY

Historical Background.—The Turks were the last of the Asiatics to invade Europe. During the sixteenth and seventeenth centuries the empire was extended to its maximum limits and included most of the Balkans, Rumania, southern Russia, and Hungary, as well as south-western Asia and northern Africa. Their defeat before Wien in 1683 marked the beginning of their decline, the break-up proceeding rapidly during the nineteenth century. Turkish rule has been long recognized as a blight upon the lands under its control and would have long since been banished from Europe except for the jealousy of the powers, no one of which wanted to see a strong rival in possession of that strategically located region.

Present-day Turkey is practically synonymous with Asia Minor (Anatolia). Though still retaining control of both sides of the straits, her actual holdings in Europe comprise only about 3 per cent of her total area. The demilitarization of the straits, the removal of the Turkish political capital to Ankara (Angora), and the abolition of the caliphate leave her possessions in Europe but a mere outpost of the real Turkey, which is now practically an Asiatic country.

TURKEY IN EUROPE

A Steppe Land.—European Turkey lies between the Maritza and the Black Sea, and includes an area slightly larger than that of Massachusetts. It is an undulating plains region with low mountains along the coast. The low precipitation with a marked winter maximum makes of it a dry steppe district given over mainly to grazing. Thus Istanbul receives 3.1 inches in the warmest 3 months and 10.9 inches in the coldest 3 months.

Significance of Position.—Devoid of mineral, forest, or even agricultural wealth of importance, the chief interest of European Turkey lies in its commercial and strategic importance. It is situated where the great overland bridge route between Europe and Asia crosses the water gateway of the Black Sea basin.

The Maritza along the western boundary is sluggish and shallow, entirely unsuited for commerce, but its valley provides a convenient railway outlet to the Aegean, especially for Bulgaria.

The overland intercontinental route from Paris and Berlin passes via Istanbul across Asia Minor and down the Mesopotamian Valley to the Persian Gulf. The value to Turkey of the European section of this road has been thus far primarily strategic. The water route to the North Sea countries, though longer, is cheaper and only through traffic which can ignore the high transport costs will move by railway.

Istanbul.—Istanbul occupies a unique site at the intersection of these two great world routes. The Bosphorus, upon which the city is located, the Sea of Marmara, and the Dardanelles (Hellespont) constitute a narrow cleft between the Rhodope and the Anatolian massives—old blocks formerly continuous (Fig. 317). It is the passage through

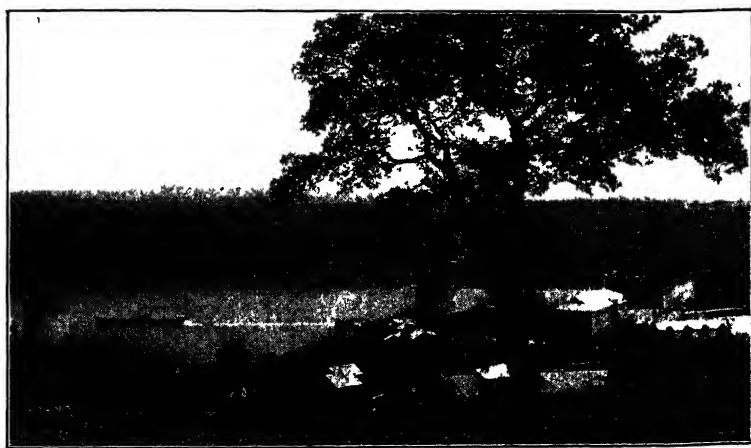


FIG 317—Istanbul and the straits The towers on the Bosphorus and Robert College.
(U. S. Department of Commerce.)

which much of the foreign trade of southern Russia and other Black Sea countries passes. As might be expected, much of the trade of the port of Istanbul is transit and entrepôt in character. Thus of some 5,000 vessels entering its spacious harbor, the Golden Horn, only about one-sixth used that as their terminal port. One-third of Turkey's prewar imports entered via Istanbul, but the exports went chiefly via Smyrna.

The natural defenses of the straits, like their commercial advantages, are unexcelled; the only outlet of the Black Sea, the waters are deep and narrow, with a surface current flowing in the middle of the straits toward the Mediterranean¹ and with both sides lined with hills admirably adapted for defense. The city is almost impregnable and is the key to the Black Sea as fully as Kobenhavn is the key to the Baltic.

¹ Used during the World War to float mines into the attacking fleet outside the Dardanelles

TURKEY IN ASIA

A Plateau Peninsula.—Anatolia is a peninsula in outline and a mountain plateau in relief. The elevation, however, is considerable, 3,000 to 4,000 feet, increasing eastward to the highlands of Armenia. Folded mountains run along the Black Sea margin and the Mediterranean coast, making entrance to the interior easiest from the Aegean or western side. Plains areas are few—only along the river valleys and the district about the lakes, such as Van, are there low level regions. The Cilician plain near the northeastern corner of the Mediterranean, though small (5,000 square miles), is one of the richest agricultural areas of Turkey.

Except on the Aegean side, Asia Minor is shielded from the moderating ocean winds so that most of the peninsula has hot summers and rather cold winters. The most critical element of the environment, however, is the rainfall, which varies from 22 to 33 inches along the coast to 8 to 14 inches in the interior, with a marked winter maximum. As a consequence most of the plateau is semiarid, the rainfall decreasing eastward.

Agriculture the Chief Dependence.—Agriculture, with special emphasis upon the pastoral phase, is the chief dependence of the Turkish Republic, and the bulk of the population derive their support from the soil, the country's exports being dominated by the returns from the crops and herds. In spite of the important role played by agriculture, only 18 per cent of the land is cultivated, and the yields per acre are among the lowest of any country. Two natural factors, mountainous topography and scanty precipitation, limit agricultural activities, yet the variation in topography, soil, and climate have resulted in a marked diversity rather than a large volume of products.

Retardation Due Chiefly to Human Factor.—Although climatic and topographic conditions are not highly favorable, the chief explanation of the unpromising conditions in Turkish agriculture lies in the human factor. Large areas are susceptible of irrigation, yet artificial watering is seldom used; commercial fertilizers are practically unknown and animal manures used but little. Large-scale production and the use of modern methods and machines are rarely found. Most of the plowing is done with a wooden stick, tipped with metal and drawn by oxen. Grain is still cut with a crude sickle, bound by hand, threshed by spreading it out on the hard earth and dragging over it a sledge, into the bottom of which there have been fastened pieces of flint (Fig. 318). The straw is separated by winnowing. Flour is made by hand, using stones for grinding. Highways are often almost impassable and railways are few. Taxation was destructively burdensome, particularly under the old system of "farming out" to individuals for a certain sum the revenue to be raised. All sorts of abuses characterized the collection of these tithes. The larger the harvest produced the greater the temptation to the tax

gatherer, so that any production beyond bare necessity was discouraged. Frequent wars have drained the country of a large proportion of its able-bodied men, leaving agriculture but poorly manned, and ruined the extensive irrigation system of an earlier day. Land ownership by the peasant developed into a sort of feudal system of share tenancy, for sooner or later poverty and oppression drove him into debt under such conditions as to make it practically impossible for him to free himself.

The new Turkish Republic has inaugurated many reforms which should improve the lot of the peasant, but centuries of neglect and suffering will require much time for remedy, especially since illiteracy is so



FIG. 318 —Ancient type of threshing board in general use throughout Turkey and the Near East. Stones are fastened into the bottom of the board which is dragged over the grain. (Courtesy Near East Relief)

general as to make the improvements in agricultural methods difficult by any other than expensive demonstrations.

Agricultural Specialties.—Among cultivated crops cereals play the major role, wheat and barley being the most important. The broad fertile plains of Hungary, Rumania, and Russia, however, are much better suited for cheap grain production, so that in the foreign markets Turkish efforts are centered more upon specialized types of produce for which she has unusual facilities. Thus there is a considerable export of dried fruits, tobacco, cotton, opium, and high-grade hides. Tobacco ranks next to grain in importance and is first in value among the exports. Sections tributary to Samsun on the Black Sea produce a superior tobacco much prized for cigarettes. Figs reached a prewar export value of about \$3,000,000. Olives, chiefly in western Anatolia, occupied

in 1913 about 500,000 acres, but the destruction during the war has greatly reduced the present output. Licorice root and attar of roses are exported in small amounts.

Emphasis on Pastoral Phase in East.—Eastward from the Aegean the rainfall decreases, temperature extremes increase, the elevation becomes greater, the vegetation sparser, so that, except in a few favored spots, cultivated crops give way to pastoral pursuits.

Sheep are almost as numerous as cattle and goats together, and there are about twice as many mules and asses as horses. Northeast of the capital city of Ankara there are several million Angora goats supplying mohair for export. Reduced during the war, the output in 1924 was about one-half that of 1913. Originally a native of this region, the Angora goat has been transplanted to South Africa which now supplies twice as much mohair as does Turkey.

Forests.—The mountainous borders along the northern and southern margins of the peninsula receive more rainfall and are forested, particularly along the Black Sea coast, where some three-fourths of the wooded areas are to be found. Lack of transport handicaps exploitation and the timber cut is insufficient for even domestic needs, though there is considerable export of valonia for tannin. Forest conservation has never been practiced and the more accessible timber has long been cut. The extensive pasturing of goats has also made forest renewal difficult.

Mining is an ancient industry in Turkey, but while a considerable variety of minerals is found the actual output is small and the potential resources unknown. Coal, silver, copper, and lead are mined regularly, while the country ranks high as a producer of chromium, boracite, emery, and meerschaum. Again, absence of means of communication, scarcity of man power, and political red tape, which makes the obtaining of mining concessions difficult, have been obstacles to the development of the industry.

Inadequate Transport.—In spite of its peninsular form with a long coast line and despite the intermediate position between East and West with its possibilities of transit trade, transportation facilities in Anatolia are woefully inadequate. No country of Europe, not even in the backward Balkans, has so few miles of railway in proportion to population. As a consequence, the productive areas of Anatolia which, because of topography and climate, are in scattered patches remain isolated and unable to dispose of their surplus. Freight rates (June 14, 1924) on wheat from New York to Istanbul were only 57 per cent of those from Ankara to Istanbul—a distance of 270 miles. The roads—so called—are mainly remnants of ancient caravan trails, dusty and stony in summer, extremely muddy and practically impassable in winter. Road-building material is abundant everywhere, yet even where sporadic efforts at the construction of metaled roads were attempted, the works were promptly allowed

to fall into disrepair. Except for a portion of one line all the railways constructed previous to the World War were by foreign capital and enterprise.

The Berlin-Baghdad railway which passes via Adrianople and Istanbul is continued through Anatolia via Konia, transverses the Tarsus ranges by way of the Cilician Gates to Adana, thence eastward to Nisibin, leaving an unfinished gap of about 100 miles between the latter point and Kala-Shergat in Syria and Iraq.

The new government realizes the necessity for improving transport facilities, as fundamental to the success of its other reforms, and is attacking the problem energetically.

Chief Cities Are Ports.—The cities of Anatolia are chiefly coastal terminals of transportation routes. Smyrna on a well-protected bay and with fair transportation to the interior is the chief port. Formerly largely Greek in make-up it was assigned to Greece in 1920 but was regained by Turkey after a short war with that country. The expulsion of Greeks and the burning of a large part of the city will make conditions of trade and industry abnormal for some time. Tobacco, skins, raisins, and rugs are characteristic exports.

Trabzon (Trebizond) on the Black Sea has for centuries been the northern terminus of caravan routes. Both it and Samsun, a famous tobacco port, have open roadsteads rather than harbors. Mersin (Mersina) on the Mediterranean ranks next to Smyrna in importance among Turkish ports. It is the outlet of the rich Cilician Plain, the cotton region of Turkey.

SYRIA AND PALESTINE

Political Regions.—The eastern Mediterranean region formerly referred to in general as Syria is now divided politically into Syria and Palestine, the former a mandate of France and the latter of Britain. Syria, the northernmost and by far the larger of the two, is roughly triangular in shape, with the base along the Mediterranean coast, the apex extending inland to the Tigris River. Palestine, to the south, is only about one-sixth as large as Syria and is confined to the narrow strip between the Mediterranean and the Jordan rift valley (Fig. 319). On the south it reaches to the Gulf of Aqaba of the Red Sea so that it spans the entire width of the land connection between Africa and Asia.

TOPOGRAPHY

Plateau with Regular Coast.—The barrier character of the Mediterranean border of Anatolia is continued along the eastern coast of that sea. Here, however, it is a plateau rather than mountains, the elevation varying from 2,000 to 4,000 feet. The coast line is markedly regular. From

the Gulf of Alexandretta to Egypt there is no harbor worthy the name. Between the plateau and the sea a coastal plain has been built up from the sediment contributed by the Nile and carried along by currents. North of the Mount Carmel promontory this plain is very narrow but to the south it widens to 15 to 20 miles.

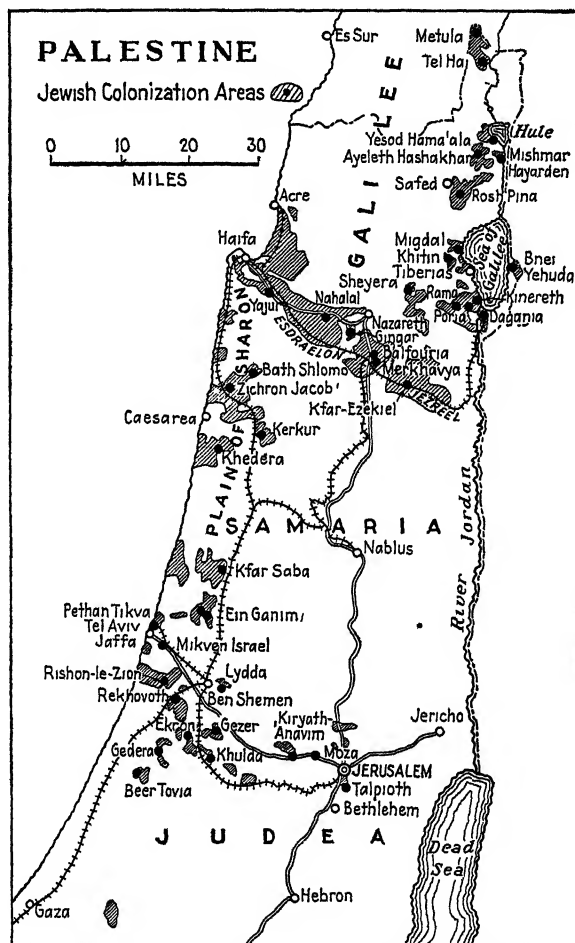


FIG. 319 —Palestine (Courtesy *Geog. Rev.*, published by the American Geographical Society of New York)

The Two Great Depressions.—The southern part of the plateau is interrupted by two depressions. One is a great rift valley, a deep narrow trench running from north to south and forming the eastern boundary of Palestine. Within this trench are included the waters of Merom, Galilee, Jordan River, and Dead Sea. The shores of the latter are 1,293 feet below sea level, the lowest land surface on the globe. The second

depression forms the plain of Esdraelon which joins the rift valley to the Mediterranean just north of Mount Carmel promontory

TRANSPORTATION

Desert and Mountain Barriers.—The major topographic features—coastal plain, plateau, rift valley, and desert plateau—all run north and south. Fortunately, however, there are several gaps by which movement between Mesopotamia and the Mediterranean is facilitated. These gateways have for centuries been of the greatest importance as routes both for war and commerce. The aim has been to find a way around the Arabian Desert—a most effective barrier (Fig. 320).

The Three Great Natural Routes.—On the north the Tigris-Euphrates headwaters approach rather closely to the Mediterranean and here also



FIG. 320.—Yesterday and today near Jerusalem (Courtesy Near East Relief)

the plateau is low and easily crossed by means of the valley of the lower Orontes which enters the sea north of the Lebanon Mountains forming the historically important "Syrian saddle."

Communication via land between the Mesopotamian and Nile valleys was usually along the narrow coastal plain of Palestine to Mount Carmel, thence inland using the plain of Esdraelon and across to Damascus. From here it was about 150 miles over the desert to the Euphrates Valley (Fig. 321)

At the southeastern corner of the Mediterranean the plateau barrier again sinks at Suez. This route, which before 1869 made use of the Red Sea, then overland by caravan across the isthmus, was in bad repute because of the difficulties of sailing in the northern part of that water. To avoid this, much traffic moved via the lower Nile to Thebes, thence overland to the Red Sea. With the cutting of the canal and the intro-

duction of steam navigation, traffic via Suez has assumed great importance and constitutes the main connection between Mesopotamia and the Nile basin.

The Pilgrim Railway.—But one railway, the Pilgrim Railway runs the entire length of the eastern Mediterranean region. From Alep (Aleppo) in the north it passes through Homs and Damas (Damascus) east of the Jordan Valley to the Mohammedan holy city of Medina. Built by contributions from the faithful from all over the world it was primarily intended for pilgrims visiting the holy city. It is joined with the coastal ports at Alexandretta (by the Berlin-Baghdad Railway) at Tripoli, (Beyrouth,) and Haifa (via the Esdraelon Plain). From Haifa a railway follows the coastal plain around to Port Said and Alexandria



FIG. 321.—Camel train in Syria. (*Courtesy Near East Relief*)

For the most part, since the population is close to the coast, the chief need for railways is to connect the interior with the nearest seaport

Beyrouth is the chief port of Syria; Damas in a large and productive oasis is the main commercial center as well as the capital, and Alep is a nodal point at the crossing of routes in north Syria.

CLIMATE

Climatic Limitation.—The climate of the Levant is of an extreme Mediterranean type. The rainfall is generally light but varies with elevation and exposure. The maximum precipitation (about 40 inches) is on the western slopes of the Lebanon Mountains in southern Syria; part of ancient Phoenicia; while northern Syria's lower elevation furnishes access for the sea to the interior, it is arid. Southward from the Lebanon ranges, the rainfall along the coastal plain of Palestine is, on the average, barely sufficient. The plateau between the coastal plain and the rift

valley receives in normal years enough for drought-resistant crops. Not only is the precipitation over much of the entire region light but uncertain as well, and droughts with attendant crop failures are not infrequent. The plateau of Judea receives 26 inches on the average,

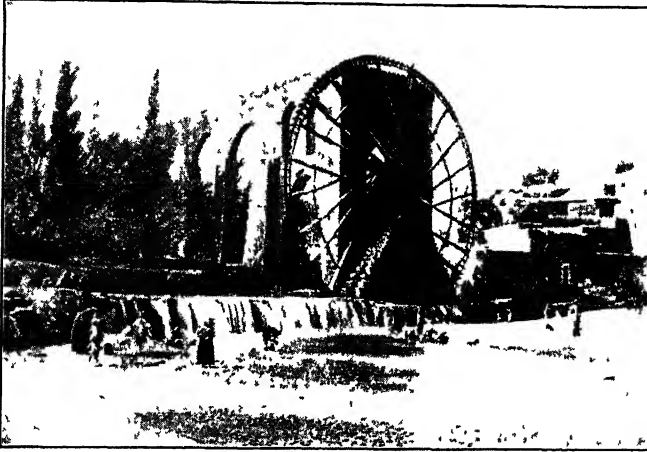


FIG. 322 —Wooden water wheel, Hama, Syria The water is lifted in pots attached to the rim The wheel is driven by float boards on the rim which dip into the stream. (Courtesy Science and Art Museum, London)

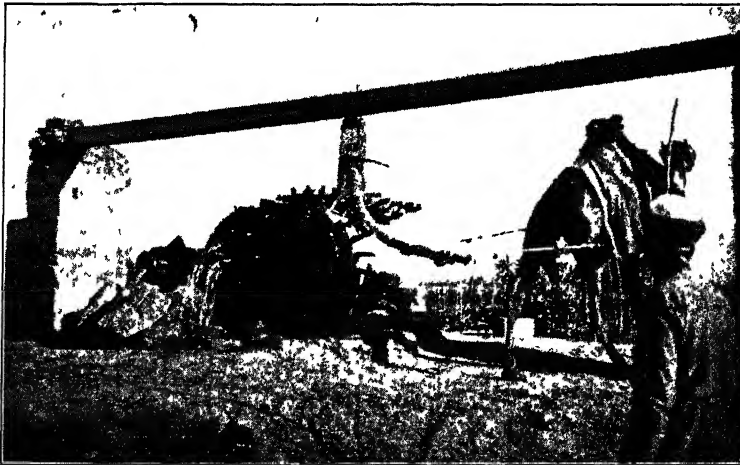


FIG 323 —Irrigation in Syria (U S Department of Commerce.)

but for one year in every five the precipitation is considerably below that and crops are seriously reduced. The rainfall of Jerusalem varies from 12.5 to 42 inches.

Water for irrigation is limited. The Jordan Valley is too deep for plateau irrigation and its own flood plain too hot and unhealthful to be

the home of an energetic people. There is estimated to be some 425,000 acres under irrigation in Syria and Palestine (Fig. 322). While this area will undoubtedly be increased somewhat, the possibilities are not great and the chief reliance must be placed upon drought-resistant crops and dry-farming methods (Fig. 323).

AGRICULTURE

General Conditions Affecting Agricultural Development.—The chief crops are the cereals, principally wheat and barley, with cotton, tobacco, fruit, and vegetables playing a minor role. In neither Syria nor Palestine is there sufficient production of staples, such as cereals, to supply domestic needs. The only agricultural surplus for export is in specialized lines, such as cotton, fruit, vegetables, and tobacco.

Climatic limitations have emphasized the pastoral industries. Syria has about the same area and population as Wisconsin, yet three-fourths of its inhabitants are nomadic. Only about 5 per cent of its surface is cultivated and the response to steppe conditions is seen in dependence upon grazing. Syria has five times as many goats and ten times as many sheep as it has cattle, and wool is a leading export item.

Political, economic, and social conditions must share with climate the responsibility for backward agriculture. The whole region has, until very recently, felt the retarding influences of Turkish rule. These transit lands, like the Balkans, have been fought over from the earliest times, and the medley of races and religions found there is still subject to frequent warfare. Syria has been the scene of almost continual disturbance since the French took charge in 1920.

Primitive methods, crude tools, and a neglect of even ordinary means of conserving soil fertility characterize native farming in Palestine. Nine bushels of wheat and 5 bushels of barley per acre are common yields in Palestine but have been changed to 20 and 40 bushels, respectively, on farms of German colonists.

THE JEWISH STATE

Problems of Its Establishment.—In view of the poverty of resources of the country it will be interesting to note the movement to reestablish in Palestine a Jewish State (Fig. 319). Since Britain assumed the mandate the population of Jews has doubled, the immigrants coming largely from central and eastern Europe. The major settlements thus far have been on the better lands—the coastal plains, the Esdraelon depression about Galilee, and in the central part of the Judean Plateau. Outside of Palestine the Jews have been chiefly a non-agricultural people. Transplanted to a country whose sole opportunity lies in the development of its soil resources will of necessity call for a marked change in their

mode of life The whole scheme is still in the experimental stage and the real test of its success must await the withdrawal of artificial support and the end of the period of abnormal building and rehabilitation activities which at present employ many of the new settlers One of the chief problems is to make Jew and Arab live peacefully as neighbors, and the proposal has been made that the Jewish element be cultural rather than the main economic or political influence.

CYPRUS

Cyprus, a British island in the northeastern course of the Mediterranean basin, is of minor importance Much of the island is so mountainous that, with the scanty rainfall, a large proportion of it is almost barren. Considerable grazing is carried on and some olives and vines are raised Irrigation works are being planned The chief value of the island is as a strategic base for Britain

MEDITERRANEAN AFRICA

European Africa.—The African margin of the Mediterranean is a narrow fringe, green in winter, between the desert proper and the sea. The width of this productive strip varies with the amount of water available either as rainfall or from wells and streams. In only one place—Egypt—is there a fertile band running southward entirely across the desert. Westward from the Nile, Libya, Tunisie, Algeria, and Maroc consist of a productive coastal zone which rapidly merges southward into the Sahara These countries, while physically a part of the African continent, are economically European—political outliers of Italy, France, and Spain.

EGYPT

The Real Egypt an Oasis.—Within present-day Egypt is the world's largest oasis and the seat of one of its oldest civilizations. Possessed of a marvelously fertile flood plain, protected by vast deserts, it has in the great river Nile not only the life-giving waters but the all important stimulus of an alternately productive and unproductive season occasioned by that river's periodic rise and fall Well favored by nature it supported a vast empire with an advanced civilization while Europe was still an unbroken wilderness.

Superficially Egypt is a vast territory, half again as large as Texas, yet the real Egypt—the habitable productive region—is less than 4 per cent of that area The country is a section of the old World Desert, which, under various names, occupies the northern one-third of Africa and crosses central Asia. Except for the oasis of the Nile and a few small watered areas, Egypt is a barren desolate expanse of sand, rock,

and gravel (Fig 324). Practically all of the 14,000,000 inhabitants live almost within sight of the river. The rainfall is negligible and temperatures average high, so that the whole economic life centers about irrigation. Only in India and China is there greater dependence of a large population upon artificial watering

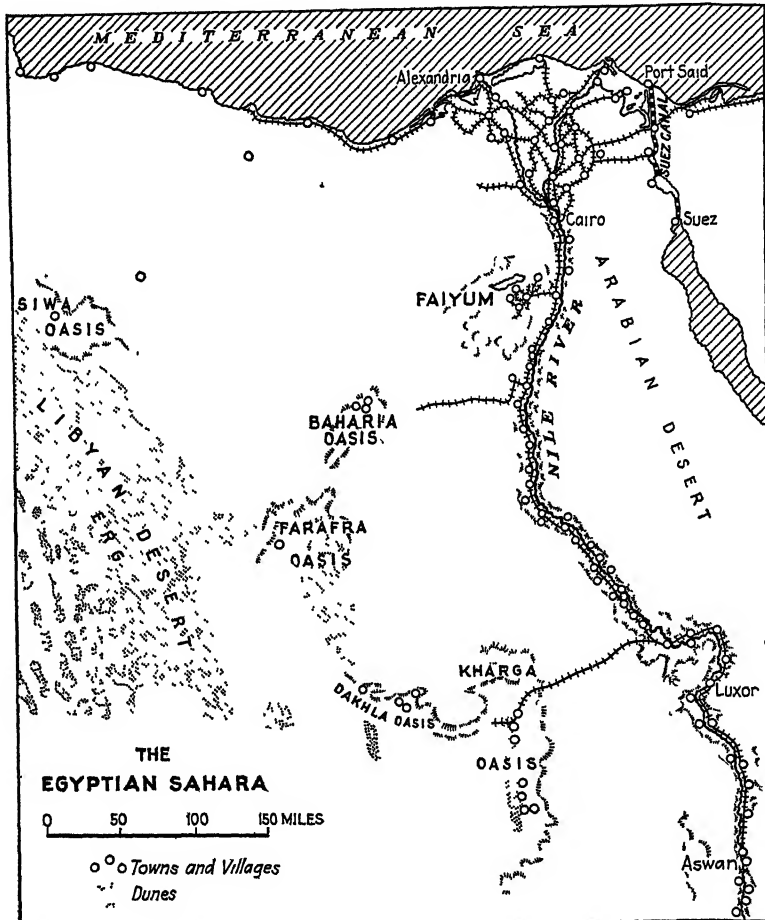


FIG 324 —Life in Egypt, as indicated by the villages and railways, is confined to the immediate vicinity of the Nile and Suez (Courtesy *Geog. Rev.*, published by the American Geographical Society of New York)

THE NILE

Physical Character of the Streams.—The Nile and its flood plain constitute the real Egypt. Among the world rivers the stream ranks high, both in its physical proportions and in its economic importance

Only the combined Mississippi-Missouri is longer, and few, if any, of the world's rivers are so necessary to the support of such a large population.

Rising in Victoria Nyanza in equatorial Africa it flows northward 3,670 miles to the Mediterranean. Throughout almost the entire lower half of its course, while crossing the desert, no tributaries are received and the volume of the river is considerably reduced by seepage, evaporation, and the withdrawal of water for irrigation. It is estimated that only 3 per cent of the precipitation which falls on its drainage basin is actually delivered at its mouth, as compared with six times that proportion by the Mississippi or Amazon. The valley in Egypt varies from 2 to 15 miles in width and ends in a large delta. For navigation the river is only of local importance, being interrupted by six cataracts between Khartoum and Assuan.

Significance of the Periodic Floods.—The periodic fluctuation in its volume is of the utmost significance. At Khartoum, on the southern edge of the desert, the Blue Nile from Abyssinia joins the main stream, the White Nile. The summer monsoon together with the melting of mountain snows of Abyssinia causes the Blue Nile to be in flood in late summer. The White Nile is much more regular, since its source is in a region having two rainy seasons annually, while in addition the flow is regulated by the lakes in its upper basin. High Nile lasts from September to January, the rise at Cairo averaging about 25 feet.

Under the old system of irrigation the rising flood waters were let into the fields enclosed by dykes which retained the waters for 5 to 10 weeks, thoroughly soaking the land and leaving a thin film of fertile mud. After the water was drained off quick-growing crops were planted and harvested, and then the land lay baked until the next annual rise.

The modern system, made possible by an elaborate series of dams and storage reservoirs, is designed to furnish perennial irrigation. It allows the cultivation of a larger area, the growing of several crops a year, or of crops requiring a longer maturing season, also those requiring the higher temperatures of summer. Furthermore, the water is much better controlled and crop production is correspondingly more certain.

AGRICULTURE

Importance of Cotton.—As a result of the improvement in irrigation, there has been a great increase in agricultural output and a corresponding growth in population, making possible the large production of the famous Egyptian cotton grown particularly in the delta region (Fig. 325). Egypt ranks fourth among cotton-producing countries, its average yield per acre being more than twice as high as that of the United States (Fig. 326). The superior fitness of this cotton for certain uses led to its rapid increase, until it has become the chief export and the barometer

f Egypt's commercial prosperity It constitutes about four-fifths of the value of all exports Recent low prices have moved the government to limit its area to one-third the total cultivated land In addition to cotton, corn, wheat, barley, rice, and sugar cane are raised, chiefly for domestic use

Agriculture Primitive.—The vast majority of the population are peasant farmers, illiterate and miserably poor The holdings are almost

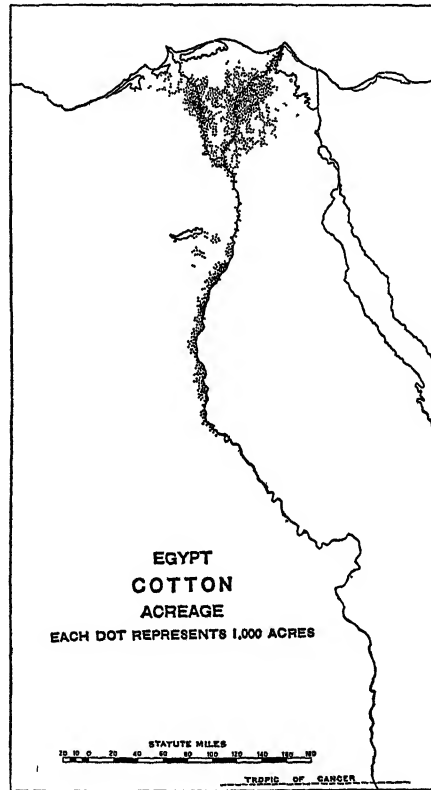


Fig. 325—The bulk of Egypt's cotton is grown on the delta (U. S. Department of Agriculture)

unbelievably small, some being less than a meter in width. Houses are of adobe, furnished with only a few copper and earthenware utensils, and in some cases are even without roofs. The climate allows and poverty compels the fellah to spend nearly all but his sleeping hours toiling on his little plot. Agricultural methods are extremely primitive, tools crude and inefficient, but labor is cheap and *farming is gardening*. The yields per acre, although declining in recent years, have been high and are very regular. The population, restricted to the irrigable portion

of the Nile, rises in the delta to over 1,100 per square mile, possibly the densest of any agricultural region of the world, except parts of China and India.

INTERNATIONAL IMPORTANCE

British Interest in Egypt.—Egypt's position, like that of the other states of the Near East, makes the country of peculiar international interest. Her position astride the Nile whose valley is the natural link in the Cape to Cairo route, and her possession of the land bridge between the Mediterranean and Red seas on the important Suez link

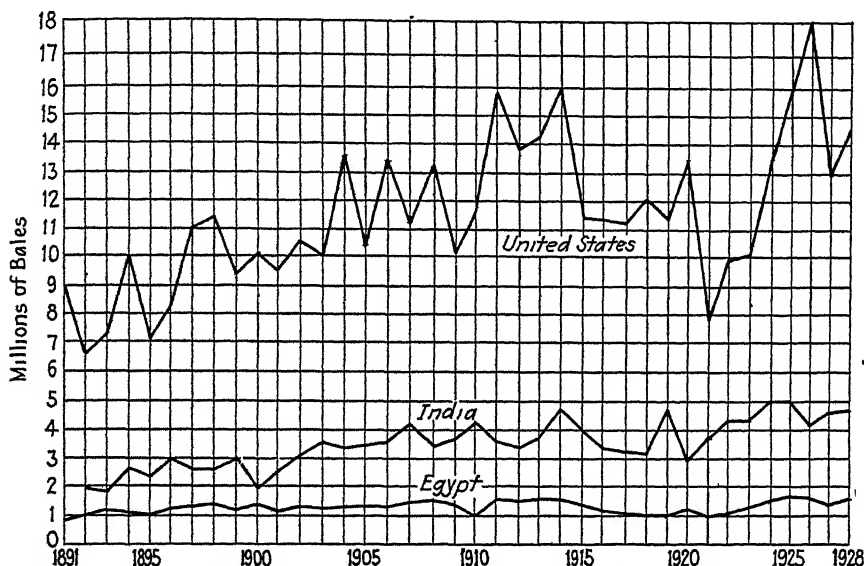


FIG 326—The Egyptian cotton crop, though small, has the highest yield per acre and is comparatively free from the fluctuations characteristic of the crops of the United States and India

in the route to India places her in strategic command of these two routes. The control of these communications, or at least their protection from possible interruption of service by an enemy country, is obviously of deep concern to Britain. As a consequence, it seems improbable that a protectorate over Egypt will ever be surrendered by Britain without adequate safeguards being provided for these routes.

Another problem of international importance concerns the use of the Nile. Britain owns the Egyptian Sudan, and the development of that country involves the use of Nile waters for irrigation, while the extension of agricultural land in Egypt calls for their further use. Obviously the equitable division of the irrigation supplies from that river as demands increase will necessitate continual cooperative effort on the part of both countries.

On the northeast Egypt is joined to Asia by the Isthmus of Suez and the Sinai Peninsula, both politically a part of Egypt. The Suez Canal is approximately 104 miles in length, without locks, and will admit vessels of 30 feet draught. Built in 1869 by the Frenchman, De Lesseps, it is owned and operated by the Suez Canal Company, the British Government being a majority share owner. It is financially very profitable, over 6,000 vessels passing through it annually (Fig. 327). Improvements now being made will increase the depth to 40 feet.

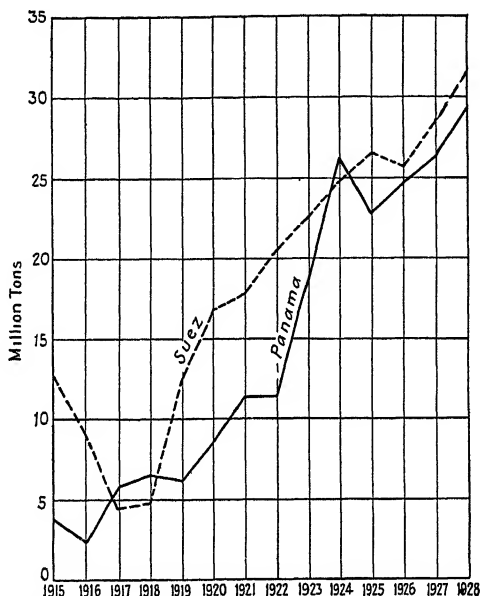


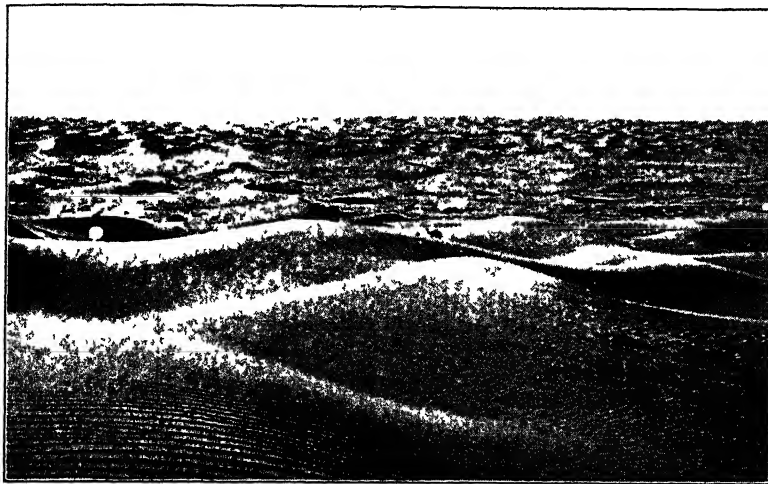
FIG. 327 —Net tonnage of ships passing through the Panama and Suez canals from 1915 to 1928. (U. S. Department of Commerce)

WEST OF EGYPT

A Wide Expanse of Territory of Limited Value.—The total area of the African countries bordering the Mediterranean west of Egypt is about 1,500,000 square miles. As in Egypt, however, these figures are misleading, for much of the territory nominally included within the political boundaries, which often are nothing more than military picket lines, is neither Mediterranean nor European but desert and included merely for administrative and strategic purposes (Fig. 328). It is significant of the economic importance of this vast area that it has a population and an irrigated area only equal to the population and the watered area along the Nile.

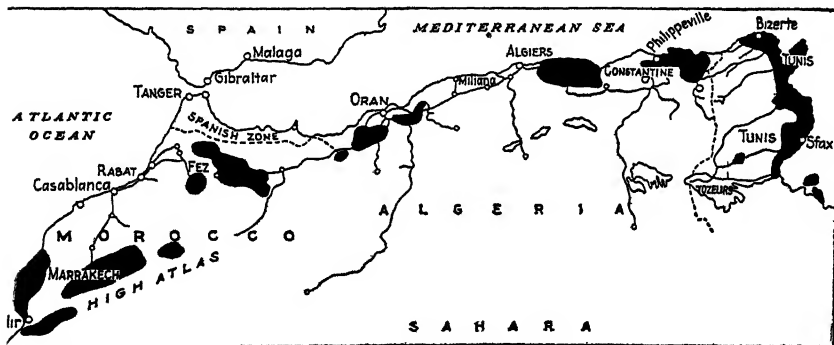
Nowhere is there a counterpart of that river and its flood plain. Only where elevations are sufficiently high to cause local precipitation is there

oduction. Where this is lacking, as in much of Libia, the cultivated area is reduced to almost negligible proportions. Being on the southern margin of the belt of prevailing westerlies in winter when they are farthest south, the rainfall is not only light but uncertain, and crop failure two



328.—Dunes in the Algerian Sahara. (Courtesy Geog. Rev., published by the American Geographical Society of New York.)

years out of three is a fair average even for Algeria. The maximum rainfall occurs in winter as is characteristic of the Mediterranean in general.



329.—Railways and principal olive-producing areas of north Africa west of Egypt.

LIBIA

A Land of Little Promise.—Acquired by Italy from Turkey in 1912, Libia is more than three times the size of the mother country, but counts less than 1,000,000 people. The population density of less than 2 per

square mile is indicative of its unpromising assets, and Italy is finding that the country offers slight relief for her own overcrowded acres. Less than 25,000 Italians live there, and the chief port, Tripoli, has but 60,000 people. Only a narrow belt along the coast and a few scattered oases are agriculturally productive, and the vast desert areas hold no promise of development. To the problem of dearth of natural resources is added that of keeping order among the native wild tribes, among which the Senussi have been particularly troublesome. The administration of the colony is estimated to cost Italy several times the total revenue received from it, as much as one-half of the latter being used for policing the country. Libya is the most unpromising strip of the north African

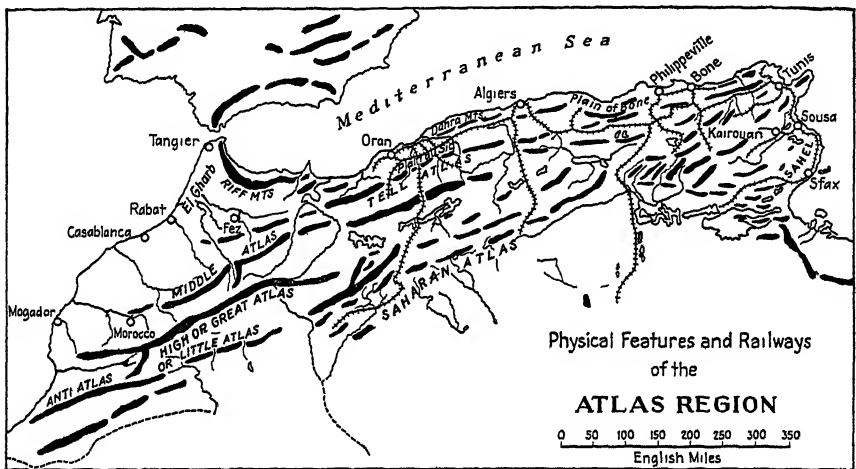


FIG 330—Physical features and railways of the Atlas Region (*Courtesy MacMunn and Coster, Regional Geography of Europe, Oxford Press*)

littoral, the least desirable remnant, left to the country which was last among European countries to secure African colonies, and so far must be considered a liability rather than an asset.

FRENCH NORTH AFRICA

The Atlas Country.—West of Italian Libya is French North Africa, made up of Tunisia, Algeria, and Maroc. Algeria is administered as a province of France, the other two as French protectorates. On the Straits of Gibraltar is Tangier, which, with a hinterland of about 140 square miles, is under international control, while a zone of 8,740 square miles, extending along the Mediterranean from the Atlantic 207 miles eastward, is Spanish (Fig 329).

Political Background.—France has been active in north Africa for a century. Her initial interference was for the purpose of punishing the

pirates of Barbary and of safeguarding shipping. From this beginning she has gradually extended her influence, although her colonial policy has vacillated between indifference and enthusiasm. Her possessions, including mandates along the Mediterranean littoral, cover almost 1,000,000 square miles and have a population of over 12,000,000 of which about 1,000,000 are European. Her task of pacifying the native nomadic tribes has been slow and costly, involving up to 1927 an estimated expenditure in money alone of between \$2,400,000,000 and \$2,800,000,000.

France's aim in recent years in north Africa has been to insure foodstuffs and raw materials for her industries and soldiers for her armies. Since her own population is actually decreasing, if one excepts the territorial acquisitions, there is no need of new homes for her population. Her latest addition, Maroc, has been hers for less than two decades, and this accounts in large part for the primitive conditions still to be found there. Algeria and Tunisie are profitable possessions. Spain's control of a narrow zone in Maroc has been even more costly considering the size of the territory. It is extremely doubtful whether her north African possession will ever repay the money and blood spent to pacify it.

PHYSICAL CHARACTER AND ECONOMIC RESPONSES

Atlas Mountains.—The dominant physical feature of French North Africa is the Atlas Mountains—geologically a continuation of the Sierra Nevadas of Spain. The ranges of the Atlas run parallel to the coast, except at their ends. In eastern Tunisie and western Maroc the ranges terminate at the seacoast which here runs at right angles to the mountain axis. Thus at these two extremities access to the plateau region is easier and the coastal plain wider than along the north coast.

Between the Atlas and the sea is a coastal region of moderate relief. Except in Tunisie, where part of this plain lies in the lee of the Atlas, this region is highly productive and through its ports passes the country's foreign trade.

Use of the Land.—Wines, olives, early vegetables, and grain are produced in various sections of the coastal zone. Many of the Atlas spurs are forested, the cork oak being particularly valuable. The more highly developed specialties of this general region, such as wine and olive oil, are almost entirely absent from the export list of Maroc, since this country is much more primitive in its stage of development than the others. Barley, skins, wheat, and almonds provide ordinary necessities. In Tunisie, cereals are raised on the coastal margin, with olives just south, this province holding fourth rank among world olive oil producers (Fig. 331).

MINERAL RESOURCES

Phosphate.—Back of this immediate coastal strip the limited variety of resources includes the large phosphate deposits as an important asset. Although the average grade of north African phosphate is lower than the best Florida pebble, the close proximity of the former to the major world market (Europe) and its location close to the sea have stimulated its exploitation to a remarkable degree. In 1927 north Africa accounted for about five-sixths of the total European imports. Tunisie, whose product ranges from 58 to 68 per cent pure phosphate, has been the chief exporter, but the higher grade (70 to 78 per cent) of the Maroc product

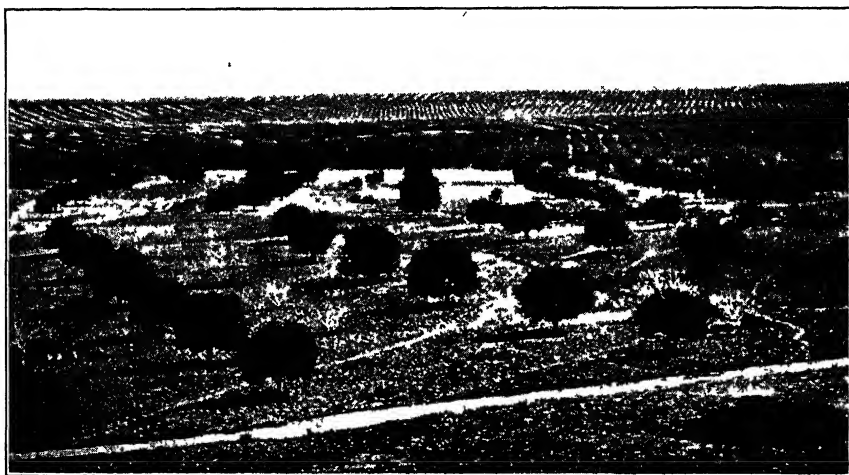


FIG 331—Dry land olive culture in northern Africa (Courtesy T. H. Kearney, U S Plant Industry Bureau)

is enabling that country to gain on Tunisie. The output of Algeria and Tunisie is now about the same.

In addition to the phosphate deposits the Atlas Mountains possess considerable reserves of iron ore. Their relatively high grade (50 per cent), low phosphorus content, easy availability to the coast, and occurrence in a non-industrial country make them of particular interest to the manufacturing countries of northwestern Europe. The production of about 2,000,000 tons of ore is about half that of Great Britain but a considerably larger proportion if based upon the iron content. Algeria accounts for about three-fourths and Tunisie one-fourth of the output. Like the Spanish ores, those of north Africa go largely to Britain. The output is limited at present, not by the reserves of ore, which are estimated to amount to between 100,000,000 and 150,000,000 tons, but by the inadequate transportation facilities.

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APPENDIX

STATISTICAL DATA¹

TABLE I—AREA AND POPULATION. PRINCIPAL COUNTRIES

Country	Area, square miles	Last census		Official estimates		Den- sity per square mile	Largest city	Esti- mated popu- lation, thou- sands
		Year	Popu- lation, thou- sands	Year	Popu- lation, thou- sands			
Austria	32,372	1923	6,535	1929	6,694	206 8	*Vienna (Wren)	1,866
Czechoslovakia	54,196	1921	13,613	1929	14,611	269 6	*Praha (Prague)	774
Hungary	35,875	1920	7,980	1929	8,662	241 4	*Budapest	928
Germany	180,989	1925	62,411	1929	64,036	353 8	*Berlin	4,346
Switzerland	15,944	1920	3,880	1928	4,018	252 0	Zürich	223
Estonia	18,358	1922	1,107	1929	1,115	60 7	*Tallinn (Reval)	130
Finland	132,597 ¹	1920	3,365	1928	3,612	27 2	*Helsinki (Helsing- fors)	227
Latvia	25,402	1930	1,899			74 8	*Riga	377
Lithuania	21,490	1923	2,029	1929	2,340	108 9	*Kaunas (Kovno)	97
Poland	149,957	1921	27,177	1929	30,733	204 9	*Warsaw (Warsza- wa)	1,086
U S S R (Russia)	8,244,228	1926	147,014	1929	153,800	18 7	*Moscow (Moskva)	2,142
Italy	119,744	1921	38,711	1929	41,508	346 6	Naples (Napoh)	976
Portugal (including islands)	35,796	1920	6,033	1929	6,440	179 9	*Lisbon (Lisboa)	530
Spain	195,040	1920	21,959	1928	22,803	115 9	*Madrid	817
Bulgaria	39,825	1926	5,479	1929	5,825	146 3	*Sofia	213
Greece	50,270	1928	6,205			123 4	*Athens (Athenae)	453
Rumania	113,887	1912	7,235	1929	18,172	159 6	*Bucharest (Bucu- resti)	875
Yugoslavia	96,737	1921	12,017	1929	13,500	139 6	Belgrade (Beo- grad)	260
Sweden	158,510 ¹	1920	5,904	1929	6,120	38 6	*Stockholm	487
Norway ²	119,653 ¹	1920	2,650	1929	2,821	23 6	*Oslo	250
Denmark ²	16,574	1925	3,435	1929	3,518	212 3	*Copenhagen (København)	761
United Kingdom	94,278	1921	44,176	1929	45,741	485 2	*London (Greater) ³	7,834
Irish Free State	26,601	1926	2,972	1929	2,951	110 9	*Dublin	419
Belgium	11,754	1920	7,466	1929	8,060	685 7	*Brussels (Bruxelles)	833
Luxembourg	999			1927	286	286 3	*Luxembourg	52
France	212,736	1926	40,744	1929	41,130	193 3	*Paris	2,871
Netherlands	13,213	1920	6,865	1929	7,833	592 8	Amsterdam	749

¹ Land area * Capital

² Not including outlying possessions

³ The area of Greater London is 693 square miles The area of registration London is 117 square miles and the population, 4,605,400 Neither population figure is closely comparable with New York

¹ From the "Commerce Yearbook, 1930," vol. II, Foreign Countries, U. S. Department of Commerce, Jan 25, 1931.

TABLE II—CLIMATIC CONDITIONS IMPORTANT CITIES

Country	City	Latitude and longitude, degrees	Elevation, feet	Mean temperature			Mean precipitation		
				January, ° F	July, ° F	Annual, ° F	January, inches	July, inches	Annual, inches
Austria	Vienna (Wien)	48 N 16 E	666	29	67	49	1.4	2.8	24.6
Belgium	Brussels (Bruxelles)	51 N 4 E	131	34	63	48	2.2	3.1	29.6
Bulgaria	Sofia	43 N 23 E	1,804	27	69	49	1.5	2.7	25.5
Czechoslovakia	Prague (Praha)	50 N 14 E	656	29	66	48	1.1	2.6	19.5
Denmark	Copenhagen (København)	56 N 13 E	43	32	62	46	1.3	2.6	21.5
Estonia	Helsinki (Helsingfors)	60 N. 25 E	38	22	62	40	2.1	2.5	26.1
France	Bordeaux	45 N 1 W	243	41	68	54	2.8	2.0	33.4
	Marseille	43 N 5 E	246	43	72	57	1.8	.6	21.5
	Paris	49 N 2 E	253	37	66	51	1.4	2.0	20.8
Germany	Berlin	53 N 13 E	125	31	65	47	1.5	2.7	23.0
	Munich (München)	48 N 12 E	1,726	27	63	45	1.5	4.8	35.2
Greece	Athens	38 N 24 E	351	48	81	64	2.0	.3	15.4
Hungary	Budapest	48 N 19 E	369	28	70	50	1.5	2.1	25.3
Irish Free State	Dublin	53 N 6 W	163	42	61	50	2.1	3.0	28.0
Italy	Florence (Firenze)	44 N 11 E	240	41	76	58	2.7	1.4	34.8
	Milan (Milano)	45 N 9 E	482	32	75	55	2.4	2.8	39.8
	Naples (Napoli)	41 N 14 E	489	47	76	60	4.0	1.0	33.0
	Rome (Roma)	42 N 12 E	170	44	77	60	3.1	1.0	32.0
Lithuania	Riga	57 N, 24 E	50	23	64	43	1.3	3.0	21.3
Latvia	Kaunas (Kovno)	55 N 24 E	118	24	65	44	1.5	3.5	24.3
Netherlands	Amsterdam	52 N 5 E	45	36	65	50	2.1	3.1	29.1
Norway	Oslo	60 N, 11 E	82	24	63	42	1.1	3.0	23.2
Poland	Warsaw (Warszawa)	52 N 21 E	392	26	66	45	1.2	3.0	22.3
Portugal	Lisbon	49 N. 9 W	312	49	70	60	4.0	.2	28.7
Romania	Bucharest (București)	44 N 26 E	269	26	73	51	1.2	3.0	23.1
S. S. R. (Russia)	Leningrad	60 N. 30 E	16	15	64	39	1.0	3.0	19.0
	Moscow (Moskva)	56 N 38 E	512	12	66	39	1.1	3.0	21.0
	Odessa	46 N 31 E	213	25	73	49	1.0	2.1	16.1
Spain	Barcelona	41 N 2 E	138	46	74	59	1.3	1.0	21.1
	Madrid	40 N 4 W	2,149	40	76	56	1.3	1.0	17.0
Sweden	Stockholm	59 N 18 W	144	27	62	42	1.0	2.4	19.0
Switzerland	Geneva (Genève)	46 N 7 E	1,329	32	67	49	2.0	3.1	34.0
Turkey	Istanbul (Constantinople)	41 N 29 E	246	41	74	58	3.4	1.1	29.0
United Kingdom	Glasgow	56 N 4 W	180	39	58	47	3.3	3.1	37.2
	London	51 N 0	76	39	63	50	1.8	2.6	25.1
Yugoslavia	Belgrade (Beograd)	45 N. 20 E	453	29	72	52	1.1	2.8	24.3

TABLE III—WHEAT ACREAGE AND PRODUCTION

Country	Acreage, millions of acres					Production, millions of bushels of 60 pounds				
	1909-1913 average	1921-1925 average	1927	1928	1929	1909-1913 average	1921-1925 average	1927	1928	1929
World total ¹	278 4	268 9	316 9	312 9	320 7	3,800	3,726	4,413	4,733	4,169
Europe	147 0	108 8	148 2	139 2	146 7	2,107	1,613	2,020	2,192	2,164
England and Wales	1 8	1 7	1 6	1 4	1 3	56	58	53	47	47
France	16 5	13 5	13 1	13 0	12 7	326	291	276	281	320
Spain	9 5	10 5	10 8	10 5	10 5	130	142	145	120	149
Italy	11 8	11 5	12 3	12 3	11 8	184	198	196	229	261
Germany	4 0	3 6	4 3	4 3	4 0	131	99	121	142	123
Yugoslavia	4 0	4 0	4 5	4 7	5 3	62	59	57	103	95
Hungary	3 7	3 3	4 0	4 1	3 9	71	60	77	99	75
Rumania	9 5	7 1	7 7	7 9	6 8	159	90	97	116	100
Poland	3 4	3 0	3 4	3 2	3 4	64	49	61	59	66
U S S R (Russia) (including Asiatic)	74 2	42 8	77 2	68 2	75 7	759	419	752	783	739
All other Europe	8 6	7 8	9 3	9 6	11 3	165	148	185	213	189

¹ Estimated, excluding China

TABLE IV—RYE ACREAGE AND PRODUCTION

Country	Acreage, millions of acres					Production, millions of bushels of 56 pounds				
	1909-1913 average	1921-1925 average	1927	1928	1929	1909-1913 average	1921-1925 average	1927	1928	1929
World total ¹	109 4	105 9	117 1	110 6		1,761	1,557	1,848	1,731	1,799
United States	2 2	4 9	3 6	3 5	3 2	36	68	58	43	41
Percentages of world total	2 0	4 6	3 1	3 2		2 0	4 4	3 1	2 5	2 3
Canada	1	1 4	7	8	1 0	2	20	15	15	13
Europe										
Sweden	1 0	8	7	7	6	24	22	15	17	16
Belgium	7	6	6	6	6	24	21	22	23	20
France	3 1	2 2	1 9	1 9	1 9	53	41	34	34	39
Spain	2 0	1 8	1 8	1 4	1 6	28	28	27	14	23
Germany	12 7	10 7	11 6	11 5	11 7	368	256	269	335	321
Austria	1 1	9	9	9	9	24	16	20	20	19
Czechoslovakia	2 6	2 1	2 0	2 5	2 7	64	52	49	70	64
Hungary	1 6	1 6	1 6	1 6	1 6	31	27	22	33	33
Poland	12 1	12 9	14 2	13 2	14 7	219	207	232	241	276
Lithuania	1 7	1 4	1 2	1 2	1 1	24	23	21	19	22
U S S R (Russia, including Asiatic)	61 1	59 4	69 1	63 6		736	676	945	756	
All other	7 4	5 2	7 2	7 2		128	120	119	111	

¹ Estimated, excluding China

TABLE V—POTATOES ACREAGE AND PRODUCTION

Country	Acreage, thousands of acres				Production, thousands of bushels of 60 pounds			
	1909- 1913 average	1921- 1925 average	1928	1929	1909-1913 average	1921-1925 average	1928	1929
World total ¹	38,025	40,144	47,171		5,463,728	5,776,635	6,735,000	
United States	3,677	3,697	3,837	3,370	357,699	395,242	465,350	357,451
Percentage of world total	9.7	9.2	8.1		6.5	6.8	6.9	
Canada	483	606	599	544	77,843	90,838	83,658	74,447
Europe								
United Kingdom	1,166	814	789	815	254,444	190,685	212,768	219,037
Irish Free State		398	364	363		67,666	83,863	112,249
Norway	102	121	125	125	24,780	27,796	34,933	34,615
Sweden	377	387	345	348	57,581	64,966	67,468	61,450
Netherlands . . .	411	430	443	446	104,051	118,990	142,010	121,252
Belgium	404	406	411	421	110,830	107,736	133,531	112,710
France	4,066	3,607	3,639	3,657	526,793	451,853	413,875	610,601
Spain	642 ²	784 ²	831		112,997 ²	96,860 ²	139,892	
Italy	759	840	875	891	67,514	66,079	54,742	73,896
Germany	6,775	6,753	7,040	7,006	1,373,609	1,304,447	1,516,373	1,472,563
Austria	436	390	408	465	53,373	54,183	91,428	79,758
Czechoslovakia	1,849	1,580	1,800	1,880	245,210	247,176	315,719	392,993
Hungary	619	639	655	684	71,118	56,936	54,031	86,587
Yugoslavia	458	537	580	581	46,288	36,528	31,312	
Rumania	399 ²	568	656	514	43,086 ²	57,489	75,404	83,380
Poland	5,693	5,443	6,189	6,514	889,531	807,919	1,016,339	1,166,585
Lithuania	403	374	300	326	40,864	60,654	35,263	72,053
Finland	181	167	172	175	18,443	21,809	25,312	30,375
U S S R (Russia, including Asiatic)	7,225	8,944	13,971		740,728	1,154,635	1,466,217	
All other	1,900	2,659	3,082		246,946	296,648	275,512	

¹ Estimated, excluding China² Period covers less than 5 years

TABLE VI—SUGAR BEETS ACREAGE AND PRODUCTION

Country	Acreage, thousands of acres					Production, thousands of short tons of 2,000 pounds				
	1909- 1913 aver- age ¹	1921- 1925 aver- age	1927	1928	1929	1909- 1913 aver- age ¹	1921- 1925 aver- age	1927	1928	1929
World total ²	5,818	5,144	7,045	7,296	7,297	61,578	49,736	67,713	66,960	
United States ³	485	693	721	644	717	4,860	6,965	7,753	7,101	7,672
Percentage of world total	8.3	13.5	10.2	8.8	9.8	7.9	14.0	11.4	10.6	
Canada	17	30	44	51	43	160	293	391	433	364
Europe ⁴	5,315	4,418	6,277	6,599	6,535	56,551	42,453	59,540	59,090	56,352
Sweden	78	94	101	106	82	1,036	1,160	1,095	1,208	726
Denmark	80	83	105	113	74	871	966	1,207	1,414	904
Netherlands	144	167	173	162	133	1,977	2,402	2,013	2,523	1,808
Belgium	146	170	175	158	141	1,793	2,173	2,186	2,015	1,639
France	612	412	590	621	607	6,544	4,472	6,616	5,521	5,910
Spain	114 ⁵	224	154	146	153	949	1,606	1,675	1,584	1,763
Italy	130	207	219	285	283	1,983	2,646	2,222	3,154	3,155
Germany	1,075 ⁶	982	1,073	1,123	1,125	14,679 ⁶	10,595	11,964	12,137	12,226
Czechoslovakia	716	629	712	635	609	8,238	7,229	8,773	6,863	6,844
Hungary	131	133	159	165	185	1,513	1,085	1,604	1,585	1,591
Poland	431	326	499	579	591	4,611	2,926	3,990	5,404	5,563
U S S R (Russia)	1,484	725	1,644	1,901	1,928	10,636	3,171	11,130	10,690	9,259
All other Europe	174	266	674	605	645	1,721	2,022	5,064	4,992	5,259
Australia	1 ⁵	2			2	7 ⁵	25	28		17

¹ Figures for European countries are for present boundaries² Estimated and excludes minor producing countries but includes several not listed³ Principal producing states⁴ Represents only the totals for countries for which data for all periods shown were available to the Department of Agriculture⁵ Less than 5 years⁶ 1912 only

Source Bureau of Agricultural Economics, Department of Agriculture

TABLE VII—TOBACCO WORLD TRADE
(Thousands of pounds)

Country	1909-1913 average		1927		1928		1929	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
Principal exporting countries								
United States	52,768	381,128	102,754	511,868	74,797	583,846	68,066	565,072
Brazil	596	58,669	3,988	65,274	3,772	58,064		68,060
Greece	18	18,011	-	116,231		107,812		123,695
Turkey	1,954	65,132	269	64,664	336	87,764		
Netherlands East Indies	3,124	161,265	14,413	169,814	11,376	154,127	16,982	160,855
Principal importing countries								
United Kingdom	127,499	4,617	212,538	8,166	206,996	5,621	230,501	12,498
Belgium	22,094	33	44,872	140	45,717	84	47,438	102
France	63,914	164	87,000	141	67,756	510	85,568	120
Netherlands	57,218	3,786	68,159	3,473	71,297	3,082	72,489	2,469
Czechoslovakia			37,626		24,919	7	45,287	1
Germany	165,097	1,062	210,141	522	243,291	582	226,664	749
Poland			33,663	506	22,568	335	36,341	257
Italy	47,732	3,008	12,372	5,379	13,334	7,601	14,553 ¹	8,651 ¹
Argentina	14,988	41	23,390	588	28,695	412		
China	15,113	25,270	84,400	30,249	142,646	19,615	62,540	

¹ January to November

TABLE VIII—LUMBER FOREIGN TRADE OF SPECIFIED COUNTRIES
(1,000 board feet)

Data in general represent combined total lumber and sawn timbers, excluding logs, ties, poles, laths, shingles, etc. In some minor aspects the figures for different countries lack comparability. Box shooks and mill ends are excluded where separated in the trade returns.

Calendar year	United States		Canada, exports	Sweden, exports	Finland, exports	Norway, exports ¹
	Exports	Imports				
1920	1,722,136	1,350,799	1,967,630	1,879,468	1,368,637	234,260
1921	1,340,271	839,288	1,079,330	1,038,502	1,356,341	102,276
1922	1,881,836	1,563,524	2,048,691	1,991,261	1,600,150	254,934
1923	2,368,185	1,971,032	2,515,481	1,774,472	1,690,563	190,936
1924	2,630,400	1,742,562	2,179,698	1,755,773	1,942,363	180,867
1925	2,502,328	1,846,398	2,273,842	1,889,418	2,001,035	222,175
1926	2,693,888	1,899,220	2,249,067	1,728,580	2,130,756	224,968
1927	2,950,535	1,744,627	2,192,501	1,914,233	2,658,888	166,385
1928	3,115,866	1,468,404	1,901,596	1,956,233	2,164,791	176,341
1929	3,070,153	1,524,686	1,952,977	2,200,653	2,286,901	192,949

¹ Sawn wood only.

TABLE IX—COTTON SPINDLES' NUMBER IN PRINCIPAL COUNTRIES

Data for 1900 and 1914 are for active spindles, for 1928 and 1929 for both active and idle, all years ended July 31; all figures in thousands. No adjustment of prewar figures to post-war boundaries has been made.

Country	1900	1914	1928	1929	Country	1900	1914	1928	1929
Total	105,681	146,397	165,352	164,363	Italy	1,940	4,620	5,189	5,210
United States	19,472	32,107	33,540	34,820	Czechoslovakia	(²)	(²)	3,663	3,673
Percentage of total	18.4	21.9	20.3	21.2	Spain	2,615	2,210	1,897	1,875
Canada	550	965	1,319	1,240	Belgium	920	1,530	2,070	2,156
Mexico	(¹)	(¹)	840	836	Switzerland	1,550	1,380	1,525	1,504
Brazil	450	1,250	2,610	2,750	Poland	(³)	(²)	1,544	1,557
United Kingdom	45,500	56,300	57,136	55,917	Austria-Hungary	3,300	4,970	1,014	955 ⁴
Percentage of total	43.0	38.5	34.6	34.0	Other Europe	1,095	1,895	3,795	3,891
France	5,500	7,410	9,776	9,880	India	4,945	6,500	8,703	8,704
Germany	8,000	11,550	11,153	11,250	Japan	1,274	2,750	6,272	6,530
U. S. S. R. (Russia)	7,500	9,160	7,311	7,465	China	550	1,000	3,528	3,620
					All other	520	800	473	530

¹ Not available

² Included in Austria-Hungary

³ Included in U. S. S. R.

⁴ Austria only

TABLE XI—IRON ORE^{*} PRODUCTION
(Thousands of metric tons of 2,204 6 pounds)

Changes in boundaries of certain European countries affect comparison between prewar and post-war data, no adjustments of the former to conform to present boundaries having been made Austria has lost part of its production to Czechoslovakia and Poland, Hungary, part of its production to Rumania and Yugoslavia, Germany, part of its production to France; U. S. S. R., part of its production to Poland

Country	1913	1922	1927	1928
America				
United States	62,972	47,885	62,732	63,195
Cuba ¹	1,608	452	422	401
Newfoundland	1,457 ¹	1,014 ¹	1,357 ²	1,573 ²
Chile (Tofo mine)	14	223	1,516	1,515
Europe				
Austria	3,039	1,112	1,599	1,928
Czechoslovakia		313	1,591	1,779
France	21,918	21,106	45,671	49,328
Germany ³	28,608	5,795	6,005	
Great Britain ⁴	16,254	6,946	11,386	11,443
Hungary	2,059	46	194	200
Italy	603	311	503	625
Luxembourg	7,333	4,489	7,266	7,027
Norway	545	269	479	
Poland		353	541	699
Rumania		95	97	84
U. S. S. R. (Russia)	9,514	221 ⁵	4,792 ⁵	
Spain	9,862	2,772	4,960	5,771
Sweden	7,476	6,201	9,661	4,673
Yugoslavia	220	36	336	439

¹ Shipments

² Shipments from Wabana mines

³ Exclusive of iron ore carrying 12 to 30 per cent of manganese

⁴ Exclusive of bog ore, which is used mainly for the purification of gas

⁵ Year ended Sept 30

TABLE XII—PIG IRON· PRODUCTION
(Thousands of long tons of 2,240 pounds)

1913 figures for Germany are for prewar territory; for Austria, they include the major portion of Czechoslovakia and Hungary Japan's figures include Manchuria and Chosen for all years.

Country	1913	1920	1921	1924	1925	1926	1927	1928	1929
World total	77,714	61,846	37,401	66,801	75,670	77,573	85,590	86,981	96,880
North America									
United States	30,653	36,401	16,506	31,077	36,370	39,101	36,289	37,832	42,400
Percentage of world total	39.4	58.9	44.1	46.5	48.1	50.5	42.4	43.5	43.8
Canada	1,015	999	616	619	596	795	760	1,083	1,170
Europe									
Germany . . .	19,000	6,931	7,719	7,687	10,014	9,490	12,893	11,615	13,300
France	5,126	3,380	3,308	7,570	8,358	9,281	9,125	9,821	10,290
Great Britain ..	10,260	8,035	2,616	7,307	6,262	2,458	7,294	6,611	7,565
Belgium	2,445	1,099	858	2,798	2,501	3,345	3,692	3,843	4,035
U S S R (Russia)	4,563	113	112	746	1,521	2,395	3,290	3,322	4,000
Luxembourg		682	955	2,123	2,325	2,472	2,688	2,726	2,850
Saar Territory		956	1,131	1,367	1,427	1,599	1,743	1,905	2,075
Czechoslovakia		725	568	967	1,147	1,071	1,241	1,515	1,600
Poland . . .		42	437	331	310	322	607	673	710
Spain . . .	418	247	341	489	520	479	603	570	720
Italy . . .	420	87	60	299	474	505	487	500	675
Austria . . .	2,344	98	220	263	374	328	428	451	470
Sweden . . .	730	477	314	526	455	493	448	431	500
Hungary. . . .			70	114	92	185	294	281	360
Asia									
Japan	236	718	646	820	917	1,160	1,263	1,500	1,500
India, British .	204	312	371	877	888	902	1,145	1,052	1,350
China	239	125	126	200	380	400	300	300	300
Oceania Australia .	47	344	352	416	439	442	550	410	450
All other	100	75	75	250	300	350	450	540	560

Source *Iron Trade Review*.

TABLE XIII —ELECTRIC POWER OUTPUT AND NUMBER OF CONSUMERS IN PRINCIPAL COUNTRIES

Country	Output of electric current ¹			Number of consumers, ² thousands, 1925
	Total, million kilowatt-hours		Per capita kilowatt-hours, 1929	
	1925	1929		
World total, estimate	160,000	300,000	153	45,000
North America				
United States	73,791	125,000	1,019	19,721 ³
Canada	10,480	18,014	1,839	1,454 ³
Europe				
Belgium	3,214	4,486	557	492
Czechoslovakia	.	1,900	130	1,000
Denmark	223	458	130	694 ⁴
France	9,700	11,875	289	2,000
Germany	11,521	29,000	453	3,000
Italy	7,600	12,700	306	1,500
Netherlands	896	1,606	205	400
Norway	4,200	8,500	3,013	300
Poland	1,300			400
Spain		3,000	133	1,000
Sweden	3,500	5,000	817	500
Switzerland	4,190	5,300	1,319	400
United Kingdom	8,320	16,200	354	3,000 ³

¹ In most cases figures cover central stations only, not isolated plants

² Data are for 1925 unless otherwise noted and are for domestic lighting only In 1929 there were 4,537,000 consumers of power and commercial lighting in the United States and 45,000 in Canada

³ 1929

⁴ 1927

Source British Electrical and Allied Manufacturers Association and Bureau of Foreign and Domestic Commerce

TABLE XIV.—RAILWAYS OPERATING STATISTICS

The world's total mileage of line at the end of 1927 has been estimated at 776,800 by Aueswald, in "Railways of the World" The total mileage in countries specified in 1928 was as follows, by continents: North America, 314,074; South America, 58,940; Europe, 253,832; Asia, 81,025; Oceania, 29,738, and Africa, 21,799. Figures of ton-mileage are based on metric tons of 2,204.6 pounds. Except as indicated, prewar figures are based on the boundaries as then existing.

Country	Length of line 1928			Freight, thousands of metric tons		Passengers, thousands		Freight, million ton-miles 1928	Gross receipts, \$1,000-000, 1928
	Total	Per 10,000 inhabitants	Per 1,000 square miles	1913	1928	1913	1928		
Total countries specified	759,408	4 1	19 4	3,109,068	3,734,345	7,566,386	10,332,909	679,882	14,028 5
Total countries for which freight ton-miles are available	683,503	4 2	21 1		3,526,823		9,666,856		13,278 2
North America									
United States	249,309	20 3	83 8	1,072,796	1,244,083	1,043,603	798,476	395,614	6,212 5
Mexico	14,600	8 9	19 2	5,931 ¹	7,501 ¹	8,666 ¹	10,942 ¹	1,914 ¹	54 2 ¹
Europe									
Sweden	10,378	17 0	65 5	41,000	34,072	67,188	66,686	1,947	85 3
Norway	2,383	8 4	19 9	7,218	9,878	17,835	18,123	402	21 9
Denmark	3,262	9 3	196 8	8,812	9,672	32,520	40,754	402	36 9
Great Britain	20,389	4 5	216 3	370,277 ⁴	311,045	1,549,791	1,666,255	18,081	944 1
Irish Free State	3,028	10 3	113 8		4,011	28,205	22,633	248	28 4
Belgium	6,014	7 5	511 7	66,542	81,401	202,641	235,075	4,862	85 7
France	39,638	9 6	186 3	217,329	350,898	547,886	767,342	25,429	600 0
Netherlands	2,277	2 9	172 3	20,183	22,032	54,072	57,578		69 8
Austria	4,156	6 2	128 4	158,818	29,119	301,915	110,839	2,634	88 1
Czechoslovakia	8,315	5 7	153 4		81,766		269,342	6,639	146 8
Hungary	5,399	6 2	150 2	87,175	26,691	166,097	90,061	1,067	53 5
Germany ⁵	85,770	5 6	197 6	399,000	432,300	1,577,000	2,005,000	41,222	1,229 7
Switzerland	3,391	8 4	212 7	18,778	24,940	128,779	168,087	1,380	97 4
Estonia	1,107	10 5	63 6		2,642		6,475	159	4 3
Finland	3,178	8 8	24 0	4,933	11,473	18,310	23,152	1,142	22 5
Latvia	1,722	9 1	67 8		3,562		11,584	301	8 6
Lithuania	1,053	4 5	49 0		1,673		5,264	185	4 7
Poland	12,114	3 9	80 8		80,724		175,205	13,624	167 3
U S S R (Russia)	47,869	3 1	5 8	158,200	178,500	244,000	343,189	66,330	1,042 9
Italy	13,541	3 3	113 1	37,427 ⁴	59,566 ⁴	93,792	111,369	7,277	253 6
Portugal	2,103	3 3	58 7	5,809	7,022	18,839	33,114		14 4
Spain	10,139	4 5	52 0	31,526	45,650 ²	57,511	114,615 ²		154 6 ²
Bulgaria	1,807	3 1	45 4	788 ³	3,419 ³	1,885 ³	9,036 ³	460 ³	8 5 ³
Greece	1,555	2 5	30 9		1,018		3,765	65	4 4
Rumania	6,913	3 8	60 7	8,778	17,039	12,054	39,513	2,665	69 5
Yugoslavia	6,280	4 7	64 9	1,632	17,445	1,779	46,158	1,984 ²	42 1
Asia									
Turkey (including European)	3,291	2 4	11 2		1,819 ²		11,580 ²	186 ³	12 2 ³
Syria	492	1 7	6 4						
Palestine	757	8 4	85 2		484		830		3 2
Iraq	940	2 8	6 6		447 ³		506 ³		3 4
Oceania									
Australia	26,335	41 1	8 9	27,413	35,109	249,856	372,007	3,164	237 7
Africa									
Algeria	2,940	4 7	13 2	5,079	6,181	6,273	8,984		11 8
Tunisia	1,258	5 8	26 0	4,246	5,700	2,919	3,700		6 2 ²
Morocco, French	1,305	2 6	8 0		3,272		2,956		5 4
Egypt	2,858	2 0	7 4	4,492	5,311	28,574	27,927	909	35 2

¹ National Railways of Mexico.

² 1927

³ 1926

⁴ Not including live stock.

⁵ 1913 figures are for present boundaries

⁶ Standard gage only

⁷ Principal lines only

Source: Bureau of Foreign and Domestic Commerce, compiled from official statistical publications of the individual countries

TABLE XV—TELEGRAPHS AND TELEPHONES OPERATING STATISTICS

NOTE—Figures for 1913 are adjusted to present boundaries of countries except those marked*. World totals include countries not listed

Country	Telegraphs				Telephones			
	Wire mileage		Messages, thousands		Wire mileage		Instruments	
	1913	1928	1913	1928	1913	1928	1913	1928
World total	5,548,100	6,900,000			37,337,908	115,500,000	14,888,550	32,700,000
United States	1,849,196	2,260,000	114,000	225,000	22,137,479	69,130,000	9,542,017	19,341,295
Percentage of world total	33.3	32.9			59.3	59.9	64.1	59.1
Europe								
Sweden	39,468	49,168	2,787	3,982	405,736	1,064,302	159,252	472,205
Norway	13,992	25,576	3,001	3,447	177,849	509,736	82,550	181,962
Denmark	8,081	8,487	1,734	2,112	303,404	885,193	116,172	331,048
United Kingdom	267,588	370,000	83,780	54,848	1,714,388	7,900,000	730,763	1,754,641
Irish Free State		21,838		2,583		82,839		28,135
Belgium	26,505	29,046	6,131	8,572	202,456	979,793	66,457	235,845
France	387,918	515,000	67,120	42,426	1,060,052	2,986,417	293,195	965,519
Netherlands	23,762	20,207	4,600	5,135	225,025	600,000	86,490	255,489
Austria	150,840*	48,901	13,908*	3,486	357,693*	480,818	179,084*	212,929
Czechoslovakia		44,176		5,602		369,580		126,551
Hungary	99,802*	51,030	13,979*	3,739	281,299*	309,998	84,040*	93,159
Germany	459,811*	327,000	51,858*	43,500	3,708,211*	11,482,634	1,387,300*	2,950,430
Switzerland	16,672	21,936	3,145	2,912	249,492	706,903	96,528	240,186
Estonia		6,312		251		52,462		12,692
Finland	10,461	6,647	446	942	76,000	229,770	40,000	113,793
Latvia		22,183		1,370		168,409		33,390
Lithuania		3,727		244		30,422		11,851
Poland		50,955		6,782		583,126		162,079
U S S R. (Russia)	500,491*	420,000	37,734	27,621	668,277	1,400,000	336,462*	300,000
Italy	132,557	216,946	20,019	29,508	195,000	700,000	91,720	292,867
Portugal	14,500	19,709	6,000	2,638	27,500	87,500	8,850	29,516
Spain	60,538	84,185	7,378	19,483	68,000	451,000	34,000	146,333
Bulgaria	9,687	7,377	2,265	3,213	8,731	46,771	2,972	13,020
Greece	10,481	30,957	1,970	4,159	5,368	14,126	3,097	11,795
Rumania	15,716	45,884	2,631	7,331	70,077	180,000	21,283	58,398
Yugoslavia		57,000		5,097		100,000		35,000

TABLE XVI.—MERCHANT MARINE BY CLASSES IN 1929

Vessels of 100 tons and over Wooden vessels on the Great Lakes, vessels on the Caspian Sea, and most sailing vessels belonging to Greece, Turkey, and southern Russia are excluded Figures for Philippine Islands included with United States.

Class	World total	United States	United Kingdom	Japan	France	Germany	Italy	Netherlands	Norway	Sweden	British Dominions	All other
Number of vessels												
All classes	32,482	4,383	8,172	2,059	1,662	2,127	1,380	1,339	1,807	1,385	2,507	5,661
Steam and motor, total	29,612	3,635	7,783	2,059	1,478	2,105	1,105	1,320	1,792	1,259	2,077	4,999
Steel and iron	27,191	3,105	7,631	1,587	1,433	2,079	1,032	1,310	1,609	1,076	1,706	4,623
Oil burners ¹	3,406	1,638	929 ²	98	86	71	89	180	102	16	(?)	197
Oil engines ¹	1,118	118	330 ²	41	13	98	79	63	186	.	(?)	190
Tankers ¹	1,315	396	492 ²	18	27	29	54	78	109	10	(?)	102
Sailing, total	2,870	748	389		184	22			15	126	430	956
Thousands of gross tons												
All classes	68,074	14,482	20,166	4,187	3,379	4,093	3,285	2,939	3,224	1,510	2,950	7,859
Steam and motor, total	66,407	13,592	20,046	4,187	3,303	4,058	3,215	2,932	3,218	1,480	2,795	7,581
Steel and iron	65,654	13,291	20,025	4,068	3,295	4,048	3,198	2,930	3,174	1,447	2,701	7,477
Oil burners ¹	18,813	8,581	5,811 ²	590	557	562	586	851	546	67	(?)	662
Oil engines ¹	5,604	447	2,067 ²	181	57	512	427	306	916		(?)	691
Tankers ¹	6,978	2,321	2,564 ²	87	153	122	232	284	704	67	(?)	444
Sailing total	1,667	890	120		76	35			7	30	154	355

¹ 500 gross tons and over

² British Dominions included with United Kingdom

Source Lloyd's Register and Bureau of Navigation, United States Department of Commerce

TABLE XVII.—MERCHANT MARINE OF MINOR COUNTRIES
(Thousands of tons)

Country	1895	1900	1905	1910	1915	1920	1922	1924	1926	1928	1929
Belgium	131	163	159	300	276	415	579	561	507	493	529
Danzig	.	.	.	.	.	.	107	99	140	128	132
Denmark	357	519	627	737	855	803	1,038	1,036	1,081	1,068	1,055
Estonia	.	.	.	...	.	.	45	46	49	53	60
Finland	.	.	.	.	.	167	214	208	233	281	298
Greece	347	245	398	528	909	530	668	761	925	1,188	1,267
Latvia	.	.	.	.	.	.	40	46	68	117	150
Portugal	104	111	101	110	123	276	286	301	280	246	246
Rumana	2	18	23	32	55	75	72	71	68	72	69
U S S R (Russia)	488	721	863	887	1,055	535		339	323	377	441
Spain	554	695	732	765	899	997	1,283	1,240	1,163	1,164	1,162

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"Either a man swallows Fascism whole or he is considered a political pariah."

How many are citizens of the "Corporative State" and how many the pariahs?

The statistics of the New Era, as we have frequently observed, are singularly wayward. In his interview with the *Daily Express*, January 24, 1927, Mussolini stated the membership of the legally recognized organizations to be 20 million.

"More than 20 millions of Italians—he declared—are members of our syndicates. Fascism rests on the broad foundation of the free will of 20 millions of Italian workers who are members of our corporations."

Franco Sacchetti, an Italian story-teller of the 14th century, narrates that Bernabò Visconti, the Tyrant of Milan, demanded to be told how far it is from the earth to heaven, how much water is in the sea and various other things useful and pleasant to know. A miller answered him: "From here to heaven is 36,854,072½ miles and 22 paces; have it measured out and if it is not so, have me hanged; in the sea there are 25,982,000 tuns, 7 barrels, 12 bottles, 2 glasses of water; let it be measured and if it is not so, have me quartered." Mussolini's statistics are something like those of the miller.

Signor Villari is more moderate. In the *Times*, November 28, 1927, he wrote:

"The organisations of workers and employers already comprise from six to seven million members, and are increasing day by day."

But this figure represents almost the whole mass of employers and employees who pay the compulsory contributions through tax-collectors, not those who have been admitted to membership. Mussolini, four months earlier than the *Daily Express* interview, i.e., in a speech of October 5, 1926, fired off the round figure of 3 million: "Let them be measured, and if it is not so, have me quartered." In June, 1927, Signor Rossoni, President of the General Confederation of Fascist Unions, in a speech at the International Labor Office Conference, gave the same figure of 3 million, stating it to include "not only industrials and agricultural workers but also commercial employees and intellectual workers."¹⁷ In March, 1928, the number of Fascist Trade Unionists was given as 2,809,641.¹⁸

¹⁷ Report of International Labor Conference, Geneva, 1927, pp. 218-219.

¹⁸ I give this figure without swearing that it is not invented. Signor Bottai (Under-Secretary of the Ministry of Labour), in his speech of March 15, 1928, gives the membership of employers in land transport as 22,500, and that of the employees as 247,334, a day later in a speech of March 16, 1928, Signor Marchi, President of the National Confederation of employers in land transport gave the whole number of persons, employers and employees, engaged in land transport as 112,754, of whom 18,366 are employers and 94,987 employees (*Popolo d'Italia*, March 17, 1928.) The clash between Signor Bottai's and Signor Marchi's figures is evident.

The number of employers organized in the Fascist associations was given as 885,968. . . .

These 3.7 million citizens must be divided again into two classes: those who are members only of the legally recognized organizations, and those who are also members of the Fascist Party. The first enjoy the privileges pertaining to the legal organizations but in them they have no other function than to carry out the orders of their officials. They are passive, not active citizens.

Active citizenship is bestowed only on those who are members of the Fascist Party, which controls the whole population. It exercises this control through the following bodies of officials:—

(a) the civil servants and local officials, who are eligible for employment only if they are members of the Party, or only remain in office as long as they do nothing in their official capacity or otherwise, which brings them into opposition with the Party;

(b) the Presidents, secretaries, and lesser officials of the legally recognized organizations of Employers, Employees, Professional Men and Public Officials, who must be members of the Party, and can be dismissed the moment the Party ceases to trust them;

(c) the officers and men of the Militia, who must all be members of the Party.

Through the public officials, maintained at the taxpayer's expense, the Party controls all the activities of the country, which fall within the field of public administration, both central and local; through the officials of the Fascist organizations, maintained by compulsory contributions from all producers, whether organized or not, the Party controls the economic life of the country; and through the Militia, maintained at the taxpayer's expense, the Party controls the political life of the country and suppresses by force any attempt at opposition. . . .

"The Party—writes the Neapolitan paper, *Lo Stato*, February 5-6, 1928—is the living aristocracy of the revolution, on whom the Duce has bestowed the high honour of providing the State with the men who are to rule the community."

At Fascist manifestations, Mussolini has the habit of putting to his followers the question: "To whom must Italy be given?" and the followers respond: "To us."

In short, the present political constitution of Italy may be defined as the dictatorship of the Fascist Party over the entire population of 40 million.

In this respect the Fascist régime is twin brother to Bolshevism. A systematic comparison of Fascist laws with Bolshevik laws will presumably lead to the conclusion that most Fascist laws correspond to, and are of later date than, some Bolshevik laws, i.e., are a mere imitation of Mus-

covite models. The dictatorship of the Fascist Party is even more absolute than that exercised by the Communist Party in Russia. In Russia the control of the Communist Party tightens as one passes from the rural communes to the cities, from municipal administrations to the provincial governments, and from these to the central government; in rural communes, the peasants retain the right of electing the local administrators who retain a large measure of initiative. In Italy, the Fascists have abolished self-government, even in the smallest rural communes, thus setting up the most rigid administrative centralization that history has ever known.

What is the membership of the Fascist Party? Even here the figures have been subject to wide fluctuations until 1927, as the following table shows:—

1925	February	Enrolled in the Fascist Party.....	250,000 ¹⁹
"	March 31	" " " " "	365,000 ²⁰
"	September	" " " " "	700,000 ²¹
1926	February 27	" " " " "	425,000 ²²
"	March 30	" " " " "	637,000 ²³
"	April 1	" " " " "	700,000 ²⁴
"	April	" " " " "	800,000 ²⁵
"	"	" " " " "	545,000 ²⁶
"	June	" " " " "	915,562 ²⁷
"	August	" " " " "	about 1,000,000 ²⁸
"	October	" " " " "	1,000,000 ²⁹

In 1927 the figures become coherent:³⁰

1927	January	Enrolled in the Fascist Party.....	940,000 ³¹
"	July	" " " " "	960,000 ³²
"	September	" " " " "	1,000,052 ³³
"	November	" " " " "	1,024,546 ³⁴

¹⁹ *Popolo d'Italia*, 27th February, 1926.

²⁰ *Popolo d'Italia*, 6th April, 1926.

²¹ Villari, *Fascist Experiment*, p. 54.

²² *Popolo d'Italia*, 27th February, 1926.

²³ *Popolo d'Italia*, 6th April, 1926.

²⁴ Proclamation of the General Secretary of the Party, Signor Turati. *Popolo d'Italia*, April 2, 1926.

²⁵ Villari, *Fascist Experiment*, p. 54.

²⁶ Statement by Signor Farinacci, General Secretary of the Fascist Party, in April 1926; *Regime Fascista*, Aug. 30, 1926. (Reproduced in the *Voce Repubblicana* the following day)

²⁷ *Il Lavoro d'Italia*, Aug. 3, 1926.

²⁸ Statement by Signor Farinacci, *Regime Fascista*, Aug. 30, 1926.

²⁹ Mussolini's speech, Oct 5, 1926

³⁰ The membership according to data supplied by the Italian Embassy at Washington, D. C., was 1,040,508 men and 106,756 women on July 31, 1930.

³¹ *Corriere della Sera*, Jan. 9, 1927.

³² *Corriere della Sera*, July 7, 1927.

³³ *Times*, Sept. 7, 1927.

³⁴ *Corriere della Sera*, Nov. 9, 1927.

If we credulously swallow this last figure, we can state the Fascist régime to be the dictatorship of one million men over a country of forty million.

But even this figure does not go to the heart of the system. Among this million men, we must distinguish the leaders from the rank and file. The rank and file enjoy privileges compared to the passive citizens and the pariahs, but must submit blindly to the will of the leaders. These, not the rank and file, exercise the real political power and are therefore the ruling class in the "Corporative State."

How many are these leaders? The Officers of the Militia number twenty thousand; the Officials of the legally recognized organizations can be estimated at twenty thousand; the Podestà in charge of the Communes, the Secretaries of provincial Federations and of local branches of the Party, the editors of influential daily papers and weekly reviews, and the deputies may be estimated at twenty thousand. In all, we may count that the country is controlled by an oligarchy of not more than sixty thousand people.

This oligarchy in turn is organized in a rigidly centralized system, in which the lower ranks are appointed by their superiors, and owe them blind obedience. The General Secretary of the Fascist Party appoints the Provincial Secretaries; these, in their turn, appoint their own executives and the secretaries of the local branches. And these again appoint the local executives.³⁵ Therefore the central nucleus of the oligarchy, termed the true "government" of the country, is composed of the very small number who form the "Grand Council of Fascism." This was set up in January, 1923, shortly after the "March on Rome," and as explained, it is composed of the Central Executive of the Fascist Party, of the Ministers in Mussolini's cabinet, and any others whom Mussolini invites to attend the sittings: on an average, twenty to twenty-five persons.

At the head of the Grand Council is Mussolini. The Grand Council has no power of decision; it discusses and gives opinions. The Dictator accepts or rejects these; he does not even ask for them unless he thinks necessary. His decisions immediately become law for the Party, the Militia and the legally recognized organizations. In the case of public servants and local officials, Mussolini can appoint whom he will after consultation with the Council.

In the Party all members take an oath of allegiance to Mussolini, as Duce of the Party: he has power to expel and degrade to the rank of pariahs any member who does not show himself sufficiently loyal. In the Militia, officers and men take a special oath of allegiance to Mussolini as General-Commander: he nominates, promotes, rewards, punishes and dismisses officers and men. As Head of the Government he controls public administration through the Ministers, whom he nominates and dismisses.

³⁵ See the Statutes of the Party in the *Stampa*, Oct. 12, 1926.

As Home Secretary and Minister of Labor he directly controls the economic life of the country through the legally recognized organizations.

This, in conclusion, is the constitution of Fascistized Italy; a population of forty million which is controlled by a Party of one million men, which is ruled by an oligarchy of sixty thousand, which is governed by a camarilla of twenty-five which is presided over by a single man.

In Dostoevski's novel, *The Possessed*, written in 1871, Shigalëvo develops his program for the society of the future:

"I must first point out that my system is not yet completed, not yet entirely worked out. For I have got entangled in my own arguments: my final conclusion is diametrically opposed to my original idea. Although I started from the notion of unrestricted freedom, I arrived in the end at absolute despotism. I may add, however, that there can be no possible solution but mine."

Another member of the meeting explains Shigalëvo's program in the following terms:

"He proposes to divide mankind into two unequal parts: only the smaller part, about a tenth of the whole, will enjoy personal freedom and unrestricted power over the other nine-tenths. These nine-tenths must entirely renounce all personality and become, so to speak, a herd, in order, through absolute obedience, by a series of regenerations, to regain their original innocence, almost like the old Garden of Eden, although, as may be remarked in passing, they will have to work. The measures proposed for depriving nine-tenths of humanity of their personal will and for turning them into a herd by means of a new education during whole generations, are uncommonly remarkable, and are in addition based on the facts of nature and are highly logical."³⁸

To Fascism even better than to Bolshevism can apply the above prophetic passage from Dostoevski's *The Possessed*.

In the Fascist doctrine this system is justified by the axiom: "The Fascist Party is the State and the Nation," which is for Fascist Italy what the axiom: "Things which are equal to the same thing are equal to one another" is for Euclidean geometry.

In the terminology of the "Old Era," the Nation is a group of men having a common civilization, who consider a given territory as their country, and possess, or aspire to possess a common political organization; the State is the network of the governing bodies who control a given territory, which may be inhabited by different nations. Parties are political organizations into which the citizens range themselves with the object of directing the governing bodies (i.e., the State) according to the ideals cherished by each party. Louis XIV could say "*L'état, c'est moi*" because, as an absolute monarch he alone was presumed to control the governing

³⁸ Quoted by René Fülöp-Miller, *The Mind and Face of Bolshevism* (London, George Putnam's Sons, 1927), p. 288.

bodies of his realm: the existence of parties was inconceivable. Under oligarchic rule, that privileged section of the population which controlled the governing bodies was regarded as the State, while the rest of the population, having no political rights, remained outside the State: the oligarchy might split up into parties. Under democratic rule, in which political rights were enjoyed by all citizens, the word State was loaded with two different meanings: the network of the governing bodies and the community as a whole, "*l'ensemble des citoyens considéré come un corps politique*"; the division of citizens into different parties was regarded as an essential feature of the system.

In the Fascist doctrine the ideas Nation, State and Party are all merged into one single notion. Signor Maraviglia, one of the chieftains of the Party, in a speech made at the Fascist National Congress of June 22, 1925, demonstrated, as surely as two and two make four, that in the new Corporative State, the three ideas, like three equal triangles, coincide in all respects.

"Many difficulties arise from the ambiguity of applying the epithet 'party' to the Fascist movement. The name 'party' has to be retained for historical reasons, because it is as a party that our régime fought and conquered. But, the democratic conception of party should be rejected by Fascism. Fascism is the nation, inasmuch as it includes and unifies the whole national community. This notion is contrary to the idea of party. Party is the reverse of universal. In the Fascist State, the party is simply a militia in the service of the State. It can only be conceived in this way. It is not a party struggling against other parties to defend and seize the power. It holds the power in its own right, inasmuch as it defends the State." (*Cheers.*)

The semi-official Fascist organ, *Tribuna*, December 2, 1926, writes:

"The old free State was based on two conditions: political freedom and the party system. All parties were recognised and tolerated under free rule. To-day Fascism has entirely superseded this theory and practice. Not only have all other parties ceased to exist, but, what is more important, Fascist rule is universally recognised as being the necessary condition for the life of the Nation. Fascism has achieved perfect coincidence between State and Nation."

No law has yet officially proclaimed the Fascist Party to be the Nation and the State. But in the "New Era," practice always precedes theory, and jurisprudence preludes legislation. For instance, the general secretary of the party, has, as we have already seen, the power to decree that wages must be cut throughout the country. He modifies by circulars of his own the regulations issued by Ministers.⁸⁷ He receives the Prefects of the provinces

⁸⁷ In February, 1928, he authorized the provincial Joint Committees of Employers and Employees (*Comitati Intersindacali*) to take into account, in compiling the indices of the cost of living, certain products, such as eggs, potatoes, wine, meat, etc., which the Ministry of Economics had left out of its calculations.

and confers with them on the situation in their provinces,³⁸ as if he were Home Secretary. In Court ceremonies he ranks among the highest personages of the realm and is on the same footing with the President of the Supreme Court, the ambassadors, et al.³⁹ Officials of the Fascist Party must be regarded as public officials, as a ruling of the Judge of Turin, in June, 1927, declared, and in consequence the internal affairs of the Fascist Party enjoy the same privilege of secrecy as the public service.

"The laws concerning the interests of the community—this judge declared—can not be interpreted apart from the political conditions of the moment. Art. 248 of the Code of Penal Procedure, according to which public officials can not be forced to give evidence, does not apply only to Government officials. In the said article 'Government' is equivalent to 'State.' The hierarchy of the Fascist Party, being an organ of the State, must enjoy the same treatment as the organs of the Government. With Fascism, for the first time in the history of modern nations, the reduction of political parties to a single one has become complete. Therefore, we have the absolute identity of the State with the party in power. The State is Fascism and vice-versa. The organization of Fascism is the central part of that organization of the State which permits of the effectual political existence of the Nation and renders sane and practical government possible. In conclusion, the same necessity which justifies the application of art. 248 to the civil service, also justifies its application to Fascism, i e., the State."⁴⁰

Had the confusion between the ideas of Nation, State and Party stopped at this point, the consequences would already have been far-reaching. But it does not stop there. The Fascist State is not only that particular political and administrative organization through which the Fascist Party to-day controls the Italian Nation; it is optimum Government; it is the culmination of history from the age of the cave-men to October 30, 1922, when Mussolini marched on Rome in a sleeping car. The Italian Nation is the Chosen People, destined to announce to mankind the end of the liberal, democratic era, and the beginning of a new civilization, the Fascist civilization. The Italian Fascist Party is the torch-bearer of this new civilization, the salt of the earth.

Signor Bodrero, Under-Secretary for Education in Mussolini's Cabinet, gave at Milan in February, 1928, a historico-philosophical address, in which he develops the following theme:

"Every great civilisation has produced a type of man who seems the embodiment of the characteristic features of the whole race at a given moment of its history. Greece gave to the world the type of manly beauty and goodness. Rome created the type of the strong and wise man. We have had to wait for the twentieth century before the Fascist appeared; the miraculous man, who

³⁸ *Stampa*, Sept 3, 1927.

³⁹ *Corriere della Sera*, Dec. 18 and 21, 1927

⁴⁰ *Corriere della Sera*, December 3, 1927

seems to embody the history of our race throughout the centuries, the type worthy of the new Italy, the imperial type to whom will be entrusted the task of restoring to our country her leadership in the world.”⁴²

All the ideas, semi-ideas and non-ideas with which the term “state” is weighted in Hegelian philosophy: the divine idea on earth, the State, the spirit becoming conscious of itself, the State its own end, the State having supreme rights over the individual, whose supreme duty is to be a member of the State, etc., etc., etc. These sonorous vacuities are the daily bread of all who read the political literature of Italy to-day.

The thinkers of the “Third Rome” (the First Rome was the Rome of the Cæsars, the Second Rome the Rome of the Popes, the Third Rome is the Rome of Mussolini) are captained by the titular philosopher of the Régime, Professor Gentile. Professor Gentile’s brain is a system of inverted filters: ideas enter it clear and come out clouded. Words which in common use are full of straightforward meaning, become in his philosophy, emptied of all concrete significance, abstract but deep-sounding. They, therefore, exercise an irresistible fascination, especially over young people who have not yet reached the age of discretion. In case I am suspected of making a caricature, I reproduce a passage in which Professor Gentile explains what is, according to the Fascist theory, the State, and in what respects the Fascist State differs from the Nationalist State. Before imperiling my readers’ sanity, I ask them to realize that the Italo-Teutonic thought of Professor Gentile is put before them in an English translation, in other words, it reaches them after passing through a fresh filter, the English tongue, which cannot help forcing even the cloudiest and most abstract ideas to assume a certain clarity and significance. After this warning the readers may begin:—

“The politic of Fascism revolves wholly about the concept of the national State; and accordingly it has points of contact with nationalist doctrines, along with distinction from the latter which it is important to bear in mind. Both Fascism and nationalism regard the State as the foundation of all rights and the source of all values in the individuals composing it. For the one as for the other the State is not a consequence—it is a principle. But in the case of nationalism, the relation which individualistic liberalism, and for that matter socialism also, assumed between individual and State is inverted. Since the State is a principle, the individual becomes a consequence—he is something which finds an antecedent in the State, the State limits him and determines his manner of existence, restricting his freedom, binding him to a piece of ground whereon he was born, whereon he must live and will die. In the case of Fascism, State and individual are one and the same thing, or rather, they are inseparable terms of a necessary synthesis. Nationalism, in fact, founds the State on the concept of nation, the nation being an entity which transcends the will and the life of the individual because it is conceived as objectively existing apart from the

⁴² *Popolo d'Italia*, February 14, 1928

consciousness of individuals, existing even if the individual does nothing to bring it into being. For the Nationalist, the nation exists not by virtue of the citizen's will, but as datum, a fact of nature. For Fascism, on the contrary, the State is a wholly spiritual creation. It is a national State because from the Fascist point of view, the nation itself is a creation of the mind and is not a material presupposition, is not a datum of nature. The nation, says the Fascist, is never really made; neither, therefore, can the State attain an absolute form, since it is merely the nation in the latter's concrete, political manifestation. For the Fascist, the State is always *in fieri*. It is in our hands, wholly; whence our very serious responsibility towards it. But this State of the Fascists which is created by the consciousness and the will of the citizens, and is not a force descending on the citizen from above or from without, can not have toward the mass of the population the relationship which was presumed by Nationalism. Nationalism identified State with Nation, and made of the Nation an entity preexisting, which needed not to be created but merely to be recognised or known. The Nationalists, therefore, required a ruling class of intellectual character, which was conscious of the nation and could understand, appreciate and exalt it. The authority of the State, furthermore, was not a product but a presupposition. It could not depend on the people—rather the people depended on the State and on the State's authority as the source of the life which they lived and apart from which they could not live. The nationalistic State was, therefore, an aristocratic State, enforcing itself upon the masses through the power conferred upon it by its origins. The Fascist State, on the contrary, is a people's state, and, as such, the democratic State *par excellence*. The relationship between State and citizen (not this or that citizen, but all citizens) is accordingly so intimate that the State exists only as, and in so far as, the citizen causes it to exist. Its formation therefore is the formation of a consciousness of it in individuals, in the masses. Hence the need of the Party, and of all the instruments of propaganda and education which Fascism uses to make the thought and will of the Duce the thought and will of the masses. Hence the enormous task which Fascism sets itself in trying to bring the whole mass of the people, beginning with the little children, inside the fold of the Party.”²²

The reader—if his reason has stood this strain—can imagine what happens to these ideas in the heads of the lesser thinkers who march in serried ranks behind Professor Gentile: the magistrates who, by extolling Mussolini at official ceremonies, hope to supplant their colleagues in advancement or to become Senators; the lawyers who have had the premises of their anti-Fascist rivals destroyed, and have taken over their clients, and advertise themselves by Fascist speeches at political meetings; the manufacturers of philosophic by-products of the Gentilian system who aspire to a university chair or at least to a post in a secondary school; the journalists who must earn their bread by selling printed paper every day, and who would have to shut up shop if they did not provide a constant supply of enthusiasm; the deputies, the podestà, the local “Rasses,” the secretaries

²² Gentile, *The Philosophic Basis of Fascism*, in *New York Foreign Affairs*, January, 1928, pp. 301-303.

of the legally recognized organizations of employers, employees, professional classes, and public officials, who must continually sing the greatness and the glory of the régime. . . .

An example of the havoc wrought by Hegelian-Gentilian philosophy is Mlle. Lion's book, the *Pedigree of Fascism*. This is how Mlle. Lion explains the difference between the Fascist State and Nationalist State:—

"There we touch what really distinguishes the Fascists from the Nationalists, for whom the State belongs to material reality, is transcendent in its relations to the individual, and negatively conceived in its relations to other states, where it appears one amongst many. It is a great engine that needs the cooperation of all the citizens to make it work, but it *does* exist independently of the citizens. Philosophically this conception belongs to the eighteenth century. For the Fascists, the State is not transcendent in its relation to the citizens; it is immanent; it is their own spiritual and economic life in its political summing up. In its relation to other states it is not negatively conceived as one among many; for its citizens, it is their national self, whilst the other nations are constitutive of their national non-self. The positiveness of the State for its citizens implies, therefore, for them, the negativeness of the other states. The task of the government is to raise the level and increase the value of the citizen . . . in order to have always the most intimate fusion of state and citizens. The empirical self requires that the peasant should plough his field. This he is bound to do to satisfy his material needs. Fascism says to the peasant: 'Thou shalt no longer plough, sow, reap for thyself, that is to say exclusively for thy material self, but for the State, which is that same empirical self plus its transcendental complement.' " ⁴⁸

No wonder the Italian peasants do not take kindly to this State, in which behind the staff of philosophic fog-makers marches the army of militiamen, "dagger in mouth and bomb in hand" as Mussolini put it in his speech of February 1, 1928, ready to ram it down their throats with the bludgeon.

In this Hegelian delirium-tremens which divinizes the Nation-State-Party as a mystical entity, omnipotent, omniscient, omnipresent, infallible, the "relations between the individual and the State—declares Commendatore Appiani, Attorney General of the Supreme Court—are no longer those of yesterday.

"Yesterday, the individual was regarded as the end, and the State as the means. To-day the State exists for the Race and the Nation, to which the fate of the individual is subordinated." ⁴⁴

The results of this conception were described by a special correspondent of the *Times*, August, 1927, in the following words:—

⁴⁸ *Pedigree of Fascism*, pp. 34-36.

⁴⁴ Speech, January 5, 1927: *Corriere della Sera*, January 6, 1927.

"The Corporative State amalgamates companies, fixes prices, wages and hours of labour, determines the number of men that ought to be employed by this or that master, and, if necessary, takes upon itself the direct management of the factories. (Article 9 of the Labour Charter.) Both economically and politically the State is everything; it absorbs everything; it does everything. The State is always after you. When you are born and taken to the Register Office, the Corporative State reserves to itself the right of deciding the name your parents are to give you. Not all names are acceptable and accepted. Some may be intentionally anti-Fascist. The new Rocco Law forbids all names 'which sound as an offence to the present institutions.' After you have taken the name the State allows you, you pass to the nursery, the school, the workshop, the office. Everywhere the hand of the ogre lies heavy upon you. All your actions are watched, directed, and controlled by the State. At the age of 25 years, if still a batchelor, you are seized by the ear and led to the collector to pay a new tax—the 100th of the heavy taxes which form one of the charms of the new régime. In order to lighten the burden, one day you marry, and hope to be left alone for the rest of your life and to enjoy some peace within the walls of your home. Poor man! The ogre of the South peeps in again through your window and has another commandment for you—children, children, children! Twenty million new Italians are wanted in 25 years' time—all producers, of course."

Mussolini himself had described this State in the *Popolo d'Italia*, as early as April 6, 1920. The Government had introduced a daylight saving bill. The Communists protested that they did not intend to submit to this new method of counting the hours invented by the "bourgeoisie" to render even more pitiless the sweating of the proletarian. In some Turin workshops there were strikes in protest against the daylight saving bill. Mussolini was at that time playing the part of anarchist. He applauded all strikes; he found the Italian State as it then was—a wretched, free, democratic State in which people struck even against the daylight saving bill!—too active, too oppressive, altogether intolerable.

"I too"—he wrote—"am against the daylight saving bill because it represents another form of State intervention and coercion. The State with its enormous bureaucracy induces a feeling of suffocation. The State was tolerable to the individual so long as it contented itself with being soldier and policeman, but to-day the State is everything; banker, money-lender, gambler, sailor, procurer, insurance agent, postman, railway official, impresario, manufacturer, schoolmaster, professor, tobacconist, and a great number of other things, besides being, as always, policeman, judge, gaoler and tax collector. The State—this Moloch of fearsome aspect—does everything, controls everything, and sends everything to perdition. Every state undertaking is a calamity. State art, State schools, State postal services, State shipping, State trading, alike are disastrous—the litany could go on to infinity. The future prospects are terrifying. Socialism is merely an amplification, multiplication and perfection of the State. The bourgeois State now controls nine-tenths of your life and of your activities; tomorrow the Socialist State will control your every moment, your every deed

or movement. To-day you are obliged to declare the number of your children, but tomorrow you will be forced to declare the exact number of your amorous adventures. Under the socialist régime, even love will be standardised, tailored, and mapped out for the use, convenience and pleasure of the hundred thousand socialist officials who will spring up under State socialism. If men had even a vague apprehension of the abyss which awaits them, the number of suicides would be increased. We are approaching the complete destruction of human personality. This State is the gigantic machine which swallows living men, and casts them forth again as dead ciphers. Human life has no longer any privacy or intimacy, either material or spiritual; all corners are explored, all movements timed, every man is pigeonholed on his particular 'shelf,' and numbered like a convict. The great curse which fell upon the human race in the misty beginnings of its history and has pursued it through the centuries has been to build up the State and to be perpetually crushed by the State!"

Nowadays Mussolini is continually repeating: "Everything in the State, nothing against the State, nothing outside the State," with the conviction of a Saint Paul writing: "In whom we live and move and have our being." If in this slogan, State stood for nation, the meaning would, with reservations, be acceptable. But in the "New Era" State means Party. The result is that an opponent of the Fascist Party must be destroyed as an enemy to the Italian State, and a traitor to the Italian Nation: *adversus hostem aeterna auctoritas esto*. Not only active opposition, but dissent in the innermost precincts of consciousness, is a crime deserving punishment. The General Secretary of the Fascist Party, Signor Augusto Turati, on September 19, 1926, addressed the following exhortation to the opponents of Fascism:—

"Adversaries, if you still retain the slightest scrap of good faith in the bottom of your hearts, pause a moment to look at the magnificent spectacle of the new Italy, and afterwards persist, if you dare, in your opposition. But remember that, from to-morrow onwards, we can no longer show leniency. From to-morrow, we must take upon ourselves the terrible duty of penetrating into your very brains. And if necessary, we shall make a clearance of you by summary methods."

3. FASCISM AND RELIGION

(a) *Fascist Religion* ⁴⁵

Culturally, if not politically, Fascism's strongest rival is the Catholic Church. No secular force of any kind has ever begun to compete with the Church in controlling the daily life and imagination of the Italian people. For centuries the Church has impinged on every aspect of Italian social and private life. We need say nothing of the long periods during which the Church was also the State in many of the Italian provinces. Its control

⁴⁵ *Making the Fascist State*, Chapter V, pp. 216-219, by Herbert W. Schneider. Oxford University Press, New York, 1928.

is much more direct and powerful than any political control can be. The whole intellectual frame-work of life is supplied by the Church. The supernatural world above this perishable material world, the salvation of the soul from the bonds of the flesh, the protection by the saints against disease, misfortune and death, the divine favor and intercession of the Virgin in all the personal issues of domestic and agricultural life, the religious care of the happiness of the members of the family both living and dead, these are the fundamental themes which still dominate the minds of the vast majority of Italians. This theological world dominates not merely in the sense that it is believed implicitly, but in the more practical sense that its moral technique is familiar. Divine protection and punishment are much more real and more conspicuous than their modern political equivalents. For every peasant and very child knows exactly how to govern himself according to divine law. The rather simple, at least intellectually simple, technique of penitence, confession, absolution, alms, indulgences, prayer and worship constitute the moral life of the people.

What is politically even more important is that the Church has organized public life and social functions around this moral world. The calendar is made by the Church, and even the daily routine is governed by the ringing of the church bell. The Church takes the place of theater, opera and city hall. In addition to the imposing gilt, the lights and shadows and the sacred images which fill the churches, and in addition to the daily miracle of the mass, the Church has supplied abundant holidays and feasts, when the whole community gathers to celebrate the season. Cardinals and bishops, gay silks and velvets and brocades, gold and silver, candles and torches, fireworks and rubber balloons, confections and drinks! If you can imagine how a combined Christmas, New Year's Eve, County Fair, and Fourth of July (old style) would affect an American boy's mind and body, you may approximate a sense of the power which these celebrations have in an Italian community. And this happens not once a year, nor for miscellaneous political reasons, but with every season of the calendar and in celebration of some vital theme in the moral life of the individual and in the traditions of the Church. Add to this the treasure of art which centers in the Church, the intellectual and social prestige which it enjoys, its numerous charitable and educational institutions, its systematic care of the deceased, and you may understand why the Church has more of a hold on the masses than has the state.

In comparison the Italian state is hopelessly bare and empty. Being of recent date, headed by a half French royal house and conducted by a very prosaic Parliament, having only occasional military celebrations and still more occasional visits of the King to make it impressive, represented continually by boyish policemen, petty officials, and busy tax-collectors, it is comparatively quite remote and unattractive. Ever since the invention of

expensive armaments, the Church costs less than the state, and yet offers infinitely more: festivals in this life and salvation in the next.

Hence the state has no chance whatsoever with the masses. Among the bourgeoisie, of course, all this is different. Corrupted by rationalism, indifferent to sensual display, or else given over to secular forms of sensuality and sensuousness, less worried about its sins, more worried about its prosperity, the bourgeoisie has turned to the state. Religion for the masses, politics for the rich—that is the traditional compromise.

A Sicilian priest named Don Sturzo upset it. In 1918 he got the idea of capitalizing the Church for political purposes, or politics for Church purposes—it is hard to tell which. He met the initial opposition of the Pope, who saw no reason why he should soil his hands on the state. But Don Sturzo persisted and soon persuaded the Pope by a few practical experiments. The result was that within two or three years Don Sturzo and his Popular Party succeeded in completely ruining Italian politics. All through the spring and summer of 1922, the veteran bourgeois statesmen tried to dislodge the Sicilian priest from his "dictatorship." But it was useless; the old game was up.

At first Fascism tried to take the Church by storm. Born in the years of bolshevist revolt, when even the industrial proletariat had temporarily turned anti-clerical, Fascism hoped to gain general favor by a violent attack. The futurist wing of the movement was naturally a sworn foe to this most "*passéist*" of all institutions. The ex-socialists, like Mussolini, were also anti-religious, as well as anti-clerical. The bourgeois liberals and republicans who joined the fascist ranks were the traditional political foes of the Church. Hence during the first year or two of the movement the fascist program was violently anti-clerical. As late as April 3, 1921, Mussolini spoke at Bologna as follows: "Fascism is the strongest of all the heresies that strike at the doors of the churches. Tell the priests, who are more or less whimpering old maids: away with these temples that are doomed to destruction; for our triumphant heresy is destined to illuminate all brains and hearts. Make way for the youth of Italy, whose faith and passion are demanding expression."

Events soon forced Fascism out of this position, two events especially: the evident strength of the Popularist Party which no one seemed able to dislodge and the influx into Fascism of the nationalists, who were modernist Catholics of the *Action Française* type. Mussolini therefore suddenly turned his back on the futurists and anti-clericals, as he did on the republicans, and made his peace with the Church. He became a defender of the religious exercises of women and children who were being persecuted in their public worship by barbarous bolsheviks. He revived the Mazzinian formula *Dio e popolo*. He preached the doctrine of the synthesis of the two Romes. He supported Rocca's position at the Fascist Congress in November, 1921,

to the effect that "it is necessary to have a dogma for social life: the dogma, namely, that unity and power lay in Rome, in the Church there is the Catholic God, and in the modern State there is the *Patria*." Thus he finally persuaded the popularists into a coalition.

But when, shortly after his accession to power, the popularists abandoned the régime, it looked as though the *Fascisti* would be forced back into their former hostility to the church, and would have to declare open warfare. This would have been disastrous, of course. Instead they played a subtler, safer game.

They came to terms directly with the Church and not *via* the Popular Party. Mussolini promised immediately on his accession to protect the Church and religion and this news was headlined in all the Church papers. The Pope adopted a benevolent attitude toward the "Fascist peace" and the "end of civil strife." In December a Papal Encyclical came out as follows: "Though the Church does not condemn the democratic form of government, yet it is a well-known fact that this system of government is especially adapted to party strife." Soon after, by the joint action of the Church and government, Don Sturzo was kicked out of politics, his local organizations and syndicates were destroyed, and in the 1924 elections the clergy were required by the Pope to maintain absolute neutrality. Thus the old compromise was reestablished: Religion for the people and politics for the bourgeoisie, spiritual authority and temporal authority, a "free church in a free state." The Pope was as content with this arrangement as a "prisoner of the Vatican" might reasonably be expected to be, and was ready to go back to the old status he had enjoyed for several decades before the ambitious Sicilian priest had upset normalcy. . . .

It is probable that Fascism will maintain its own list of martyrs and saints and continue to build up its own mythology. The elements of the new religion are already present in abundance.⁴⁶ First of all, the *Fascisti* lay much stress on their mysticism. Their political faith, they say, cannot be expressed in a consistent program, because it is mystical. Their love of violence is said to be a mystical devotion to a new faith, and an immediate intuition of a profound truth, which they were unable to define until *after* they had acted upon their vision. Hence they regard themselves as men of faith, spiritual to the core, and it is one of their commonplaces that Fascism has reestablished idealism in a world of skepticism, and has asserted the duty of fighting for transcendent values against the current doctrine of waging class conflicts to protect one's own rights. Furthermore Fascism has revived the primitive Christian joy of martyrdom. A true Fascist thinks only of his duty, and regards any sacrifice which he may be called upon to make in the performance of it a privilege. This is the inner driving force of the new religion.

⁴⁶ An amusing, sacrilegious, and of course unofficial Fascist parody on the Creed is reprinted in Ludovic Nadeau: *L'Italie fasciste ou l'autre danger*, pp. 132-4.

Thus Fascism represents a religious revival. Not in that it proposes to found a new religion and develop its own theology, but in that it has given to thousands of Italian youths an ideal for which they are ready to sacrifice all. A number of *Fascisti* have confessed to me, quite privately, that they would not willingly die for their Christian faith, nor for democracy, nor for socialism, nor even for their King, but for Mussolini—gladly and unhesitatingly. They claim that Fascism represents more than merely one faith among many. They will not admit that the socialist “Martyrs” are on an equally ideal plane; for, they say, in the first place, Fascism has superseded other faiths, has won the allegiance of the very men who formerly professed less satisfying faiths; and, in the second place, it has made its appeal in the name of sacrifice or to a transcendent, non-personal good, not in the name of class interests or salvation of one’s soul, or defense of one’s rights or any other selfish motive.

(b) *Catholicism and Fascism*

One would rather expect that an opportunist ruler would endeavor to come to terms with the very considerable power of the Catholic Church, particularly if his rule needed all the support it could secure. Thus it is not strange that as an atheist in 1909 Mussolini could declare, “Fellow workers! If within five minutes God does not strike me down, I have demonstrated to you that God does not exist,” and yet in 1929 he could recognize the spiritual independence of the Pope and acknowledge his own allegiance to him.

In his early years of dictatorship Mussolini insisted that the Catholic Church had nothing to do with education, that it was solely the prerogative of the Fascist State. At that time he suppressed the Catholic boy scouts and declared that the State was over all and above all. In 1929 Mussolini could sign an agreement with the Pope and settle all differences. It must therefore be recognized that at the moment Fascism is trying to secure the support and prestige which agreement with the Catholic Church may bring. In order to understand what this agreement between the Pope and Mussolini means, let us recall the historical setting.

Up to 1870, the Pope was not only the Supreme Head of the Church but ruler of the states belonging to the Church, which included several petty principalities. When Napoleon removed the French garrison in 1870, Victor Emmanuel took the city. In 1871 the Italian Government enacted a law covering the “prerogatives of the Supreme Pontiff” which was called the Law of Guarantees, but Pope Pius IX refused to accept it, and he as well as succeeding Popes have remained voluntary prisoners in the Vatican.

Now in 1929 Mussolini reaches an agreement with the Pope and ends

this period. The settlement is divided into three parts, a treaty which has international value and affects the Universal Church, a concordat which governs the relations between the Vatican and the Italian State alone, and a financial agreement. To begin with the last item, Italy promises to pay the Holy See 750,000,000 lire or about \$80,000,000 and also to give 5 per cent negotiable Italian State Bonds to the nominal value of one billion lire. This money is some compensation for the property of the Catholic Church seized since 1870.

In the international treaty the sovereignty of the Holy See over Vatican City is recognized, which thus becomes the smallest independent entity with an international status in the world. Catholics regard this as advantageous because it proves preposterous the charge that the Pope is really seeking a temporal rather than a spiritual government.

The treaty vests all power in the hands of the Pope. Any supplies coming from abroad to the Vatican have absolute freedom of entry without custom duties or taxes.

The Concordat which governs the relations between the Vatican and the Italian State recognizes the validity of marriages performed in the Church without any civil ceremony. It also recognizes that the teaching of religion shall be compulsory in the Italian schools and that teachers and text-books on religion shall be approved by the Pope. Children, however, whose parents do not desire them to have religious instruction in the public school need not attend such exercises. Bishops named by the Pope can be vetoed by the State, if they are objectionable on political grounds. Every Bishop, before installation in a particular diocese, has to take an oath at the hands of the Premier swearing to uphold the welfare and the interest of the Italian State. Naturally it is recognized that religious organizations have the right to own property.

The new constitution of the State of Vatican City came into force on June 10, 1929. On May 13th and 25th Mussolini made speeches before the Italian Chamber and Senate, justifying his agreement with the Pope. In the course of this defense Mussolini said that Christianity might have died out had it not moved its headquarters to Rome. In reply the Pope says: "What of all things we least expected were expressions that are heretical, worse than heretical, regarding the very essence of Christianity and of Catholicism." The Pope also objected to many other things which Mussolini said, as well as to his attempt to reassure the Italian Parliament that the State had renounced nothing to the church and had lost no control. The Pope says:

"We are displeased and if there were any animosity or bitterness in our soul, we would say we are offended by those not infrequent expressions that nothing has been renounced by the State to the Church, that no control has been lost, that the means have been preserved for exercising vigilance over her, over the clergy, regular and secular, as if to say the least, it was a question of a suspicious people; as if the Church had ever attempted a true and real usurpation or spoliation to the injury of the State, whereas history proves and it is well known that the contrary is true in Italy and abroad; as if the Church ever had demanded that the State give up the right and authority which truly belonged to the State, whereas she is recognized to be the defender of both especially in times of crisis and difficulty, whereas the Church has never demanded nor does she now demand from the State anything but the right to just and orderly cooperation for the common good, and that that coöperation be in accordance with justice and adapted to the ends proposed"

The Pope also disliked Mussolini's comments on education and showed it plainly by the following:

"Logic further requires that it be recognized that the full and perfect mission to teach does not belong to the State but to the Church, and that the State may not prevent nor interfere with her in the exercise and fulfillment of that mission, not even to the extent of restricting the teaching of the Church exclusively to the teaching of religious truths."

Shortly after the Pope had written this letter, the Italian Government on July 8th sequestered the Catholic publication *Youthful Life* on the ground that it tended to draw "Italian Catholic youth away from the legitimate authority of the Italian State."

It can thus be seen that while Mussolini has made peace with the Vatican under terms which have significance for the entire world, this does not at all mean that the Pope endorses or approves of Mussolini or Fascism.

From a sociological standpoint it is apparent that Mussolini is trying to secure the advantages of associating with Fascism the authority, prestige, and social control of the Church. In some measure he has no doubt achieved this result through the Treaty and Concordat. On the other hand, this support hangs by a slender thread and, as can be seen, the Pope will tolerate no interference with what he considers his religious rights.

V. SIGNIFICANCE FOR THE UNITED STATES

I. AMERICA AND FASCISM

Americans have not perhaps realized that the Fascists themselves believe that the whole world will turn to Fascism. They, scarcely less than the Bolsheviks, believe that they have a universal panacea for the ills of the

world. In fact Count Giovanni Elia, speaking at the Williamstown Conference, August 5, 1929, said:

"We believe that little by little as the mental, political, and social forms of the past throughout the world approach a definite and fatal decadence, the world will turn in its perplexity for a new fount of knowledge and life to that which is a new and original creation of Italian genius."

American sentiment has, on the whole, been friendly to Fascism and violently opposed to Bolshevism. Many of our newspapers and periodicals, including the *Saturday Evening Post*, praise Fascism and Mussolini. They look on the Duce, his technique, his power psychology, as a great example for the rest of the world. In Boston some of the wealthy have framed portraits of Mussolini in their drawing rooms. Our captains of finance and our ambassadors return from Italy glorifying the Italian dictator. The United States Government goes out of its way to reduce its debt to Italy; on the other hand, for a long period of years it refuses even to recognize a Soviet government. What is the reason for this difference in treatment?

One wonders if it is not because Fascism more closely resembles America as she now is. Does it not have much in common with our dominant business culture? At any rate, Mussolini told the representatives of the American press that he found more parallels for Fascism in the United States than in any other country. Mussolini also believes that we manage to continue democracy in America because we really do not have it. In part this is because wealth exerts an influence and in part because we still have only two parties. He has said:

"When the sheep lead the shepherd, when the soldiers of an army can conduct a better campaign than an experienced and technically trained general; when the sailors can command a battleship in action, then democracy will be accepted as an efficient form of government. You point to the United States Government as efficient, and think that proves the worth of democracy. But you are efficient just in proportion as you have grown away from democracy. . . . Can the President be called before your Congress? Do his ministers have to appear before any body whatsoever to defend their acts? Not at all. . . . If you like to call that democracy, very well, but it seems to me more like autocracy limited to a fixed term in office. Another thing—your Congress is now efficient—fairly so—because it has in it but two parties. Just as soon as you get three regularly constituted parties its efficiency will disappear and a people like yours, used to swiftness and certainty of action, will not tolerate the resultant chaos."

A moment's reflection will convince one of the partial validity of this statement. Fascism is a bulwark of capitalism. It protects private prop-

"Abbott, Willis J., *Mussolini*, Italian Historical Society Pamphlet No. 2.

erty and champions profits. Richard Washburn Child, in lauding Mussolini, says that the heart of his program for Italy is "Work and Discipline." Fascism emphasizes achievement and efficiency. It tests a creed not by its philosophy but by its action. "Deeds, not words," is a motto both of American business and of Fascism. Fascism believes in 100 per cent nationalism and so does the American patriot. Mussolini bases his right to seize the power on the theory that "the end justifies the means." According to James Truslow Adams, one of the most distinguished historians in America, the winner of the Pulitzer prize of 1922 and until 1912 a member of the New York Stock Exchange, America has become a business culture with a business philosophy not unlike that of Mussolini. He says that the business man demands a free hand to gather wealth and absolute state protection once he has it: "He may steal the water resources of a dozen states, but once they are stolen, he is a defender of the Constitution and the sanctity of contract."⁴⁸

Perhaps the closest analogous movement in America to Fascism is the Ku Klux Klan. To be sure, the Klan craze in the United States did not continue as long as Fascism has in Italy; but then it never controlled the United States government, suppressing all opposition parties and denying to opponents freedom of speech and of the press. Let us consider some of the parallels between the Ku Klux Klan and Fascism.

The Klan believes in white supremacy; so does Fascism. The Klan was attractive because of its mysterious power—it inflicted secret whippings at night on those who opposed its tenets. Similarly, Fascism has had its strong-armed squads, its whippings, and its castor-oil treatments. The Klan parades, sallies, and midnight parties provided an outlet for the average American's love of excitement and adventure midst the drab monotony of small town life. Similarly, Fascism provided excitement, adventure, and the spectacular to soldiers who had returned from a "glorious" war. The Klan undoubtedly furnished compensation to those suffering from an inferiority complex. A great many Americans feel that the full measure of their hopes of achievement has not been fulfilled. The Klan gave them an opportunity to be important, to belong to an organization that was ruling and helping, so they thought, to make America a better place to live in. It provided an outlet for egoism and the sense of importance. Now Fascism undoubtedly plays a similar rôle in Italy.

In that country every one is supposed to be like-minded in support of the Duce and Fascism. In fact Fascism demands like-mindedness. The Klan in America demanded that all should hold the same views about

⁴⁸ *Harper's Monthly*, July, 1929.

America, that all should build mental stereotypes of a particular kind. Thus it traded on the traditional hates and prejudices of white America. The individual by himself might feel ashamed to insult a Catholic, but acting through an organization which plays up exaggerated propaganda about the rule of the Pope he gives free rein to hates and prejudices. So it is in Italy. Of course the Fascists have not the same prejudice against Catholicism and the Pope, since that is the dominant religion there; but Fascism matches the Klan in persecuting Bolsheviks, socialists and other critics of the *status quo*.

It seems probable that this attitude was enormously stimulated by the war spirit. During the War a great deal of anti-German propaganda had been circulated and fear had been aroused of spies and other foes of the native land. Now both the Klan and Fascism could play on the fears thus excited and their supporters could give full expression to those fears.

Unlike Bolshevism, Fascism can never become a unified international force, because its egoistic national spirit cannot cross state borders. Nevertheless the spirit of Fascism can exist anywhere, disguised in the nationalistic dress of each country. Both Fascism and the Klan foster a narrow nationalism and "one-hundred-percentism." The Klan said: "We must make America safe for the white race"; "America for the Americans; away with foreigners who criticize"; "Get out or get under—get out of the country or under the flag." Fascism says: "Italy is for the Italians; we must build again the empire that was Cæsar's."

The Klan has ceased to be of compelling force, but some form of Fascism is always a potentiality in America: it is so close to our temper and our prejudices. It might be said that Fascism is the counter-revolution of the middle and upper classes. If these groups should find their power seriously threatened, they would doubtless make use of powers similar to Fascism. Indeed we already have American brands of this movement: vigilance committees, "red"-baiting organizations, and patriotic heresy hunters are of the same genus. Fascism thus becomes a possible technique whenever democracy fails. Nor are symptoms lacking that democracy is not functioning well. Economic power, wealth, is becoming concentrated into fewer hands. Though democracy is talked about a great deal, it is not always practised.

One great safeguard against Fascism is universal free education. The most serious threat to democracy is the uninformed and unthinking average man. Italy has a large illiterate class; many of her people do not understand democracy. To the extent that America can train her people to think intelligently for themselves, we have a prophylactic against Fascism. As pro-

tection against Fascism we must be sure that we have freedom of thought, of the press, and of association. This is perhaps the most certain vaccine against the toxins of arbitrary power. Concretely, it means that in time of strike or national emergency we must preserve the full right of the minority to express itself. H. M. Kallen went to Italy looking for a renaissance of the arts. "But what I saw and heard and read left me with the feeling that where art and thought are concerned, Fascist Italy is not alive, but drugged or dead. Amid the superlative inheritances from the past, I could find among all the pictures that I saw and music that I heard, no present breath stirring."

This throttling of creative work in art is one sign of rigid censorship and the absence of freedom. Freedom is written into our constitution because we once fought and died for it. As Justice Holmes so cogently stated in his dissenting opinion in the *Schwimmer* case: "Some of her answers might excite popular prejudice, but if there is any principle of the Constitution that more imperatively calls for attachment than any other it is the principle of free thought—not free thought for those who agree with us but freedom for the thought that we hate."

America feels sympathetic towards Fascism because lately she has forgotten the heritage of the past. Apparently each generation has to learn again for itself the meaning and value of freedom and liberty. Having prospered mightily in material things, America sees no necessity for completely suppressing the free utterance of those who oppose private property and of those who advocate a new economic order. However, if such groups really threatened the present holders of political power, the latter would find the use of violence an easy and natural step. Yet, to impartial students of history, Fascism is an object lesson, proving once again the rigid necessity for the three-fold freedom: of speech, of the press, and of assembly.

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BOOK VI
THE COOPERATIVE MOVEMENT

QUESTIONS ON THE COOPERATIVE MOVEMENT

1. Outline clearly the case against the present social order as brought by the Cooperative Movement. To what extent do you think this is or is not justified?
2. Trace the origin and the causes of the consumers' Cooperative Movement.
3. From the account of the leaders of the cooperative movement, what class do you think has been most active? Why are college students in America relatively so ignorant about the movement, and so uninterested?
4. State the fundamental principles of the genuine consumers' cooperative.
5. Which kind of cooperative do you feel is the most important to develop in the United States? Why? What is the difference between a credit union and a cooperative?
6. How would you go about organizing a coöperative society? List the successive steps you would take.
7. (a) Why have not consumers' cooperatives had more success in America? (List your reasons.) (b) Are the reasons any different in the case of the producers' cooperatives?
8. What is the difference between socialist and coöperative programs?
9. How far is the Coöperative Movement in accord with our American traditions—politically, legally, ethically?
10. Do you think the United States will have an extensive development of the Cooperative Movement in the future? Why? Why not?

QUESTIONS FOR THOUGHT

1. If you have a college cooperative, how is it organized? Are students represented on the board? How does it differ from the Rochdale cooperative, if at all? Does it attempt to serve the outside local community? Do you think it should or not?
2. Should the average citizen help organize cooperatives? Why or why not?

I. HISTORY AND CAUSES

WE TURN in this section to a movement which, although it is not without educational and social features, is primarily an effort to bring about greater economic justice to the consumer. It is also unique in refusing to bring about changes through political effort. Coöperation levels its attack chiefly against production and distribution for the profit of the few instead of the use of the many. We start this section with their indictment.

I. CRITICISM OF THE PRESENT ORDER ¹

The industrial revolution brought in the machine age, but also brought increasing misery to the workers. Once people got their own food in the fields, the forest, and the sea. They made their own things. In the course of time machines were invented that would supply the needs of more than one man. Presently it was found that a man or group of men could own a machine and have other men work with it. The workers made things with the machine, but the things they made belonged to the owner of the machine, who sold them to people who needed them. The idea of the men who owned the machine was to buy raw material and labor, put them together, and sell the product for more than it cost. They naturally paid the lowest price possible for materials and for labor, and sold the manufactured article for the highest price possible. The difference between these two prices—the cost price and the selling price—was the profit; and the more profit that could be made the more successful was the business. Profit making was its purpose.

This has now become the chief method of business, not only in production but also in trade and service.

When things are made for use there is every reason to make them good and serviceable. When things are made for profit's sake the owner of the machine has every reason to make them cost him as little as possible, to make them *look* good, and to make the consumer pay as much as possible.

The *profit motive* has grown so greatly during the last hundred years that now most everyone in industry works to make profits, either for himself or for his employer. Making things is secondary to making profits. This applies to the worker just the same as to the owner of the machine. The worker is working for wages. His chief interest is not to make some-

¹ From James P. Warbasse, *What Is Cooperation?* (1927), pp. 1-6.

thing that is good and useful, but to get the most wages for the least work. The owner of the machine and the worker are doing quite the same thing and have quite the same motives. . . .

In order to make profits, selling prices must be kept up. Scarcity helps this. Thus there is every reason to keep things scarce. If there is too much of a commodity, its price can be kept up by destroying some of it. . . .

Along with all of this goes *the low purchasing power of the consumer*. In industrial countries, where things are made, the workers can not buy the things they produce. The selling price is so much above the wages the workers receive that if they go into the market and try to buy back what they have produced they can not do so. . . .

The dangers in the profit method of business are very great. Human life is sacrificed in its wars. Aeroplanes fall from the sky because some cheaper material was used in some important part. Railroads kill people because they are not run primarily to carry passengers but to make profits. Killing people is cheaper than putting in safety appliances. Buildings collapse. Mines cave in. In the United States, 2,500 miners are killed each year, largely as a tribute to the lack of safety devices. Vessels sink in the sea. Life preservers fail to hold the people up because they have been filled with something cheaper than cork. Foods are adulterated. Thousands of laws, police, courts and prisons, an army of inspectors and spies are employed by governments to protect the people from the dangers of profit business. This army is bribed and corrupted. . . .

There is a widespread recognition of the valuable features of the profit system, as well as of its deficiencies. Those who enjoy its advantages are the most powerful on the earth. They carry on propaganda in its favor—perhaps the most extensive and efficient propaganda in the world. It is the propaganda in favor of things as they are.

2. FIRST BEGINNINGS²

Surrounded as they were by an environment of bitter hardness, they regarded the situation with a practical eye, uncolored by the rosy dreams of the Utopians. They felt the pressure from two sides. On the one hand was the employer, the manufacturer, who ever sought to lower their wages. On the other hand was the storekeeper, who sold them the necessities of life, ever tending to raise the prices of the goods he sold them.

Against the employer they presented a purely defensive front: the trade-union. He was too powerful to attack. But the shopkeeper seemed not so formidable. To acquire collective control of the factory seemed hope-

²From Albert Sonnichsen, *Consumers' Coöperation*, pp. 12-27. The Macmillan Company.

less. To acquire collective control of the distributing station, the store, seemed well within the realm of practical realization. Once they grasped the idea of collective ownership they applied it there, to the store. Thus they organized into consumers' societies and opened their own stores.

According to William Maxwell, author of *The History of Coöperation in Scotland*, there were humble beginnings of this nature made before the close of the sixteenth century. The first one of which there is any record was initiated in a small village in Scotland, Fenwick, in 1769. It was the creation of a few poor weavers who saw in this associative effort nothing more than a means whereby they could expand the purchasing power of their scanty wages by a few pennies.

An enterprise differing in nature, but based on the same coöperative principle, was launched in Hull, England, in 1795. The harvest that year had been unusually bad and the price of wheat was higher than it had been for a generation back. Stirred up by these depressing conditions, the "poor inhabitants" of the city presented a petition to the mayor, as follows:

"We, the poor inhabitants of the said town, have lately experienced much trouble and sorrow in ourselves and families on the occasion of an exorbitant price of flour; that, though the price is much reduced at present, yet we judge it needful to take every precaution to preserve ourselves from the invasion of covetous and merciless men in the future. In consequence thereof, we have entered into a subscription, each subscriber to pay 1s 1d per week, for four weeks, and 6d per week, for four weeks more, which is 6s 4d each, for the purpose of building a mill which is to be the subscribers', their heirs, executors, administrators, or assigns forever, in order to supply them flour; but as we are conscious that this subscription will not be sufficient to bring about this purpose, we do hereby humbly beseech your Worship's advice and assistance in this great undertaking, that not only we but our children yet unborn may have cause to bless you."

Except that this latter undertaking sought and received outside aid, these two are each a representative type of a great number of coöperative enterprises found throughout Great Britain during Robert Owen's period. That there might be in them the germs of a mighty economic mass movement of the future the idealists never suspected; they could not see in grinding flour or selling groceries a road to the social millennium. On the other hand, the members of these small working-class societies themselves seemed equally unconscious of any social mission. . . .

In the early winter of 1843 a number of weavers in the town of Rochdale, in the North of England, came together to discuss ways and means of bettering their condition. There had recently been a strike in the flannel mills of the town followed by a lockout and general unemployment. Labor organization as a means of bettering the situation did not inspire them with much hope, after the experience they had gone through. There

was little chance of raising wages then. But why not try to accomplish what would amount to the same thing through other means; raise their wages by lessening the cost of living through a coöperative store?

There had been a cooperative store in the town some years before, and it had failed. Nevertheless, they decided to try again. Just previously, Jacob Holyoake, an Owenite disciple, who, however, differed from his earlier colleagues and the master in that he attached some importance to the cooperative store, had delivered a lecture in the town and had urged them to make a beginning.

The weavers agitated the idea among themselves until they had increased their group to twenty-eight, each of whom agreed to subscribe one pound toward the initial capital required for the purpose of opening a grocery store. This money was paid up in weekly instalments of a few pennies, but finally the twenty-eight pounds had been accumulated and the now famous store was opened in a back street, Toad Lane, the members taking turns as salesmen during the evening hours the store was kept open.

Hundreds of just such stores had been opened before by just such groups of workingmen. There was, however, a special feature about the business system on which the little enterprise was founded, inscribed in the by-laws of the society, which has served to distinguish it in the history of the coöperative movement. As is known now, this feature had been practised by earlier societies, but the Rochdale weavers made it widely known through their success and so made the name of their town a household word in every civilized country of Europe.

The business plan on which the early societies had been operated had been various. In all of them the individual members subscribed certain fixed sums, usually one pound, toward the necessary capital. Some stores, among whose members idealists predominated, sold the goods at market prices, and allowed the profits to accumulate with the store's capital. Such societies rarely developed, for the reason that the majority of the people are not idealists and seek definite benefits, caring little for future promises. This was King's plan, pure and simple. It had to be slightly modified before it would work.

Other stores returned the profits to the shareholding members as dividends on shares, thus differing from ordinary joint-stock companies only in that the shares were scattered among a greater number of people. Other stores sold at cost price, or slightly above. These latter, naturally, had not within themselves the element of growth, and the slightest miscalculation easily resulted in a fatal loss.

The Rochdale coöperators formulated a plan which has ever since borne the name of their community; a method which was, in effect, a compromise between the idealism of King's proposal and the inherent selfishness of average human nature.

The peculiar clause in their by-laws provided that goods in their store were to be sold at regular market prices, such as prevailed in the private stores. At the end of each quarter the profits, after all expenses had been paid, and after a substantial appropriation had been made to a reserve fund, was given back to the purchasing members, to each in proportion to the amount of his purchases. Capital representing the share-holdings of the members, received only a fixed, minimum rate of interest, its rental, as it were, and was considered as an expense. Each member, man or woman, had one vote in directing the affairs of the society, regardless of the number of shares held, which was, however, usually only one.

Such, in brief, is the Rochdale plan, with such minor variations as paying half rebates to purchasers not members, allowing or not allowing, employees to become candidates for office, etc. The appropriation of a fixed proportion of the profits to education, or propaganda, was another Rochdale feature considered important in those days, before this function was largely taken over by a federative central body.

The Rochdale system of returning the profits of an enterprise to the purchasers in the form of rebates has generally been considered a revolutionary innovation, though it must be clear that not returning the profits to the purchasing members would be still more revolutionary, provided they were retained as collective capital, in conformity to King's ideas. It will also be clear that had it been practicable to follow the latter course, coöperative stores would have developed much more rapidly in that the profits would have augmented their capital. Thus the Rochdale plan is actually only a modification of the principle itself.

Yet even as it is practised, the Rochdale system abolishes private profit from industry, so far as it reaches. In the ordinary commercial sense, "profit" is that margin between buying and selling prices which the private merchant, or manufacturer, puts into his pocket. It is from this source that the great private fortunes of commerce are derived. It is to this tax, levied by Capitalism on the consuming public, that the Socialists attribute all the evils of capitalist industry. On this point the coöperators agree with the Socialists. Therefore, since this margin is derived from the consumers, they either return it to them or place it to their credit as collective capital, thereby abolishing private profit completely. In fact, it is no longer profit.

Is it just, some may ask, that his remuneration for services rendered should be taken from the merchant or the manufacturer?

But coöperation does not deprive the shopkeeper or the manufacturer, or what corresponds to these functionaries under the coöperative system, for remuneration for services rendered. Under the profit system the merchant or the manufacturer has largely the power to fix his own remuneration, this power being limited only by competition or the capacity of

the public to pay his prices. Never does profit bear any relation to cost. This power of fixing his own remuneration, cooperation would take out of the hands of the merchant and place in the hands of the people, giving him, instead, a fixed salary, or wage, approximately in proportion to the value of his services. Thus the independent shopkeeper, or merchant, is transposed into the salaried store manager; the private manufacturer into the paid factory superintendent. Universally applied, this would mean that every one of us should become the paid servant of his fellows.

II. LEADERSHIP *

Experience shows that efficient individuals are essential to the success of any movement. The masses are not capable of originating, devising, and planning. They are capable only of approving, disapproving, following, or rejecting what some individual has planned or suggested. Behind the coöperative movement are people of understanding, executive capacity, and enthusiasm. In every country are the outstanding characters who have made coöperation possible. It is a fact that these people represent no one class. If they must be classified, it may be said that they belong to the aristocracy of intelligence, of vision, and of ability. They had the training and the command of their own time necessary for the task. The workers followed where these men guided and led.

In England, Dr. William King, a prosperous physician of Brighton, formulated the policies and put together the information of which the Rochdale Pioneers made use, and upon which they built their success. He was the father of cooperation. He was a man of a high degree of culture, and from 1822 to 1830 published a magazine, *The Coöperator*, in which he set forth the philosophy of coöperation and the methods necessary for success.

Robert Owen, a wealthy manufacturer of Lanark, added enthusiasm for the movement; but he was interested in the workers' organizing to control production, and never understood the consumers' movement. Then came Charles Kingsley, a clergyman and writer; John Stuart Mill, an eminent economist; E. Vansittart Neale, a lawyer; Thomas Hughes, a lawyer and statesman; Edward O. Greening and George J. Holyoake, writers and teachers. The two latter were the propagandists of the movement; they were members of the Liberal Party.

The present leaders in Great Britain are men who have come mostly from the ranks of labor. The movement has trained its own leaders. Several of these men have been knighted by the King.

M. Godin, a wealthy manufacturer, did for France what Owen did for England. He created enthusiasm for profit-sharing and social service among the workers and called it "coöperation." In the end, like Owen,

* See note on page 534.

he turned over his plant to the workers who made good capitalistic business of it. The French movement owes most to Professor Charles Gide, the eminent professor of political economy in the University of Paris. He is connected with no political party nor class.

In Germany, the conservative, Professor Victor A. Huber, a highly educated scientist, was the pioneer who explained, advocated, and promoted coöperation. Holyoake called him "the father of coöperation in Germany," and said of him: "He stood aloof from all parties. This has been a peculiarity of other eminent coöperators." A judge, Herman Schulze-Delitzsch, and a Prussian mayor, Frederick W. H. Raiffeisen, formulated, standardized, and established, after long years of hard work, the system of coöperative banking which was the beginning of the German movement. Heinrich Kaufmann, a school teacher, was the intellectual guide and organizing genius of the German movement during the period of its most substantial growth until his death in 1928.

The Hungarian movement owes most to Count Alexander Karolyi, one of the wealthiest men of the old Hungarian nobility.

A clergyman, the Rev. Hans Christian Sonne, started the first Rochdale store in Denmark, in 1866.

M. de Longuinine, a Russian landlord, who studied Schulze-Delitzsch, established the first coöperative bank in Russia in 1865. Banking was later promoted by Prince Vasseltchikov. Cooperative stores were first started by local mayors, intellectuals, and the well-to-do. Later, manufacturers started stores for the employees. All of these became coöperative in due time. The first stores in Russia were started by Germans. But there were no outstanding individuals promoting the early store movement.

The first coöperative institution in Italy was a bank founded by Signor Leone Wollemborg, philanthropic physician. The organization of stores followed. The greatest promoter of cooperative banks, and the outstanding figure in the movement, was Signor Luigi Luzzatti. He was an eminent political economist and Minister of the Treasury of Italy for many years. He was esteemed in all countries for his high services. He died in 1927—a Fascist.

The other outstanding leaders in Italy were socialists of the working class who committed a large part of the coöperative movement to socialism. Foremost among these is Signor Antonio Verganni.

In Belgium the first coöperative institution was a bank founded by a Catholic priest L'Abbé Melilaerts. The bakeries and distributive societies came later and were most encouraged by Cæsar De Paepe, Edmond Van Beveren, and Edward Anseele, socialist intellectuals. Anseele and socialists of the working class are the present leaders of the socialist-labor societies. Catholic priests are the leaders of many of the other societies.

In Poland, where coöperative banking is making remarkable progress,

the most common type of leader is the parish Catholic priest, who is often the only man available with the necessary education to understand organization, accounting, and the intelligent keeping of books. The President of Poland elected in 1922, was Wojciszewski, who had been before his election professor of cooperation, author of many books, and the outstanding leader of the movement.

Professor Hanners Gebhard gave the inspiration and guidance necessary to the starting of consumers' coöperation in Finland. The most prominent figure in the Finnish coöperative movement in recent years has been Vaino Tanner, a social-democrat, now President of the Republic of Finland and President of the International Cooperative Alliance.

In Sweden, Anders Orne, a social-democrat, has been and is the prominent figure. Born of a long line of farmer ancestry, he took his degree in philosophy at the University of Upsala, and went into journalism. He has been a member of Parliament and has held various positions under the government; at present he is Minister of Post and Telegraph. He believes the general strike is futile, and regards cooperation as a far more practical form of organization than the State. He is President of the Stockholm Society, a director of the Swedish Union, and member of the Executive Committee of the International Coöperative Alliance. His recent book *Coöperative Ideals and Problems* is a notable contribution to economic philosophy.

Norway had a lawyer, O. Dehli, of Christiania, to promote the movement and give it his counsel. He worked for many years and bore the burdens of organizing cooperative societies, framing rules, and seeing the Norwegian movement well started. The present outstanding leader is A. Juell, Norwegian Minister of Public Welfare.

In Ireland, the movement owes most to Sir Horace Plunkett and Rev. T. A. Finlay, a Jesuit priest. George Russell, the Irish poet, artist, and economist, furnished the intellectual inspiration.

The coöperative banking movement in India, which has expanded so extensively and is doing so much to relieve the poverty of the working people, got its start from Sir David Hamilton and a number of British government officials.

Coöperative banking was started in America by Alphonse Desjardins, a Catholic official in Quebec. He introduced the credit union in the United States.⁴

The three outstanding leaders of the coöperative movement in America at present are: Dr. James P. Warbasse, President of The Coöperative League of the U. S. A., Agnes D. Warbasse, Educational Secretary, and Cedric Long, Secretary of the League.

⁴ To this point the treatment on leaders has been taken from *What Is Cooperation?* by J. P. Warbasse, pp 159-163, with one or two minor changes

Dr. Warbasse was made President of The Coöperative League soon after its formation and even before his retirement from active surgical practice in New York and Brooklyn. He has given all his energy and talents to the promotion of the movement for the past ten years.

Born in the State of New Jersey in 1866 and educated in the public schools, Dr. Warbasse took his medical degree at Columbia University and later studied at Goettingen (Germany) and Vienna (Austria). Beginning as an interne in a Brooklyn hospital in 1889, he gradually attained a position of preeminence as a surgeon. Author of several books on the sociology of medicine, his last and best known work on surgery is *Surgical Treatment*, published in 1919 in three large volumes and known throughout the medical world. During these active years, he was also editor of two medical journals and wrote voluminously on the subject for scores of papers and magazines.

During many of the later years of his surgical practice, Dr. Warbasse became increasingly interested in economic problems. Finally convinced that his interest in patching up the bodies of men and women who were being mutilated at an ever increasing rate by a wasteful economic system was becoming subordinated to his interest in seeing that system changed, he retired from surgery and threw himself into the cooperative movement in 1919.

The Coöperative League was a very small and struggling organization when Dr. Warbasse first joined it. Since those years it has grown and flourished under his leadership. As president and editor of *Coöperation*, its official organ, since 1919, he has traveled to all parts of the United States and has visited more than twenty of the countries of Europe to study the cooperative movement abroad. Six national coöperative congresses have been held in the United States under his leadership, and Dr. Warbasse has been a delegate to three of the International Coöperative Congresses in Europe (Basle, Ghent and Stockholm). The League now has a membership of almost two hundred coöperative societies, is actively promoting coöperative training, schools, district wholesales, uniform accounting systems and coöperative audits, and the subdivision of the country into district coöperative leagues.

Mrs. Warbasse, wife of the President of the League, is Educational Secretary. Although mother of six children and President of a women's social club in Brooklyn, N. Y., she devotes much of her time to coöperative work. On two occasions she has been a delegate to International Coöperative Congresses in Europe, representing The Coöperative League.

Mrs. Warbasse writes a great deal on coöperation for the magazines

and papers in the United States. She has also assisted Dr. Warbasse in the preparation of his volume, *Coöperative Democracy*. Her special interest has been in cooperative housing.

Mr. Long first became actively interested in coöperation while working with the labor unions of the textile industry in 1919 and 1920. In 1921 he spent the summer working as a clerk in coöperative stores, and in the autumn of that year joined the staff of The Coöperative League where he has served ever since.

Born in Massachusetts in 1889, Mr. Long attended the public schools and Harvard University. After his college course he was employed two years in business and then went back to study at Union Theological Seminary, graduating in 1918 and taking the pastorate of a church in New Hampshire for six months.

In the early months of 1919 a strike broke out among the textile workers at Lawrence, Mass., and Mr. Long enlisted in the fight on the side of the workers, serving on their Central Strike Committee, on one occasion being severely beaten and jailed by the police. He later became manager of the local of the newly formed labor union. He remained with this union until the middle of 1920.

Mr. Long has written many articles on coöperation, has lectured on the subject in all parts of the United States, and has been Managing Editor of "*Coöperation*," official organ of The League, for two years. He has also been editor of the "*Home Cooperator*," family propaganda paper published by The League for distribution by societies. In 1923 he edited the American edition of Professor Gide's *Consumers' Coöperative Societies*. He travels considerably about the country giving technical aid and advice on problems of organization and administration of coöperative stores.

He is the Executive Secretary of the Eastern States (district) Coöperative League and Secretary of the Eastern Coöperative Wholesale Society.

III. THEORY

I. THE BASIC PRINCIPLES

For the most part, the American public is blissfully ignorant of the fundamental principles of coöperation and even unaware of just how it differs from capitalistic enterprise. Because of the confusion in the American mind about what a coöperative is and the gross ignorance of many of our otherwise most intelligent classes, the coöperative movement is severely handicapped. Only recently a majority of the United States Supreme Court failed to distinguish between a coöperative which issued stock and an or-

dinary capitalistic concern. It is only fair to say that Justices Brandeis, Stone and Holmes dissented. Justice Brandeis, who wrote the dissenting opinion, gave an admirable statement of the aims and purposes of coöperation in which he said,⁵ "Their aim is economic democracy on lines of liberty, equality and fraternity. To accomplish these objectives coöperative coöperators provide for excluding capitalistic control."

Until the nineteenth century production was largely for use: for example, the guild member of the thirteenth century was proud of the quality of his workmanship. At the present time production is carried on largely for profits. The worker is not so much concerned with quality as with wages, the manufacturer is primarily interested in how much profit results and only secondarily in how the public is served.

The radically different theory of the coöperative movement is that production should be for use and not for profit. Service should be the basic motive in society. In order to make these principles again dominant the consumers themselves organize into democratic societies to supply their own wants. Since in buying an article a consumer is primarily interested in getting genuine use out of it, there is no danger in his stressing profits. Now every single man, woman, and child is a consumer—consequently the movement is completely democratic: it includes everybody. The coöperative method makes use of the fundamental sociological principle of mutual aid. It would revolutionize the economic life of man but it would do so by peaceful means. Coöperation grows slowly and within the existing fabric of society. As it succeeds it displaces little by little the capitalistic structure. As a matter of fact, since its inception in 1844 coöperation has had steady and persistent growth. It should be recognized, however, that the coöperative movement did not develop as the result of a carefully premeditated theoretical plan for the betterment of society. Neither was it initiated by the intellectuals of the upper classes. As we have seen, it sprang into being from below. No clear theories were formulated until after it had proved successful. A philosophy of the movement slowly evolved as a result of a practical doing. The pattern was achieved without intention. Indeed, the Rochdale workers dreamed of starting a producers' movement "to arrange the powers of production, distribution, education and government to create a self-supporting home colony." They failed of their purpose, but they created the coöperative movement which has swept over the world.

What is the motivation behind the movement? Undoubtedly there is no single motive. Some would help to change society towards an ideal

⁵ See dissenting opinion *Frost vs. Corporation Commissioner, State of Oklahoma*, Feb. 18, 1929.

brotherhood, others wish a fairer distribution of the good things of life to all, still others are primarily interested in bettering their own condition. Henry Ford was once asked why he reduced the price of his car. In reply he told of sliding on large bob-sleds in his boyhood days and of inviting any strange boy to jump on and slide downhill. "Why did we invite the extra boy?" Henry Ford asked. To this question his friend replied that undoubtedly he wanted to be friends with the other boy or give him a good time. "No," said Henry Ford, "it was so that the sled would go further." In much the same way it is a fundamental principle of sociology that through coöperation more can be achieved. Individually a man of small means cannot protect his family in the contingency of accident or death; organized with a sufficient number of others, he can be insured for a large sum.

It thus comes about that when people who live together and know each other have common wants or needs there is a tendency to try to unite to meet their deficiency. One of the motives behind coöperation is a form of self-help which includes all one's neighbors. This can still be called selfishness by some but in that case it is the kind of selfishness we need. If society is dominated by a form of selfishness which includes the Golden Rule in its expression, it is a form of enlightened self-interest which ordinarily goes under the name of altruism. In the family group there usually springs up a common bond of mutual sharing and helpfulness. Cooperation is a form of the extension of this family spirit to include the entire community. We might define cooperation as a free union of consumers into a society controlled democratically, with membership open to all, for the purpose of supplying needs jointly. This, of course, is a definition of only one form of coöperation, that of the consumers' movement.

How does it differ from socialism? There is a likeness in that both socialism and coöperation are critical of our existing society and both demand that industry be reorganized on the basis of production for use instead of for profit. However, in the practical method of achieving this end coöperation differs radically from socialism. Coöperation recognizes the existence of a class struggle but does not participate in it. It will not outlaw the private producer, it will merely compete with him. It is quite possible that the cooperative will never supplant the private trader in certain specialized lines such as, for instance, distinctive and personal modes of apparel. Furthermore, coöperation is against state ownership. It desires the consumer to own the basic means of production and distribution. It does not favor guild socialism because it feels that goods and services should be owned by those who use them rather than by those who produce

them. On the other hand, the cooperative movement is friendly to the trade unions.

In the course of time the consumers' coöperative movement has found that certain fundamental principles have helped to make the movement successful. The first three listed below are generally recognized to be absolutely essential, but the others are observed in the majority of successful cooperatives:

1. One member, one vote.
2. Legal rate of interest, only, on capital.
3. Surplus after fund for interest on capital stock, reserve and education is returned to members in proportion to patronage. In other words the organization is conducted on the basis of service to all its members, not for profits to the few.
4. Unrestricted membership, although each individual is expected to invest some money. If he has none his investment can be deducted from the surplus which would otherwise be returned to him.
5. Cash sales at the market value.
6. Constant education in the principles and aims of coöperation.
7. Federation as soon as possible with the nearest coöperative societies with the ultimate purpose of national and world coöperation.

The first principle is in striking contrast to that of a capitalistic enterprise, where the number of votes depends on the amount of money invested. The reason for this difference is that coöperation believes that human values are greater than property values. In our present society the dominance of property is widely evident. In Newport, Rhode Island, in 1929 an exclusive club is allowed to run wide open although it is notorious as a center for gambling and liquor. Being largely patronized by men and women of wealth, it has too great influence to be closed. Dillon, Read & Company buy up the Dodge Motor Company and after selling stock to the public so that they cleared millions on the transaction still retain complete control of the company. The common saying, "Money talks," is true. Coöperation is trying to go back to the ancient principle that humanity is of infinitely more worth than property. The principle of one vote per person is essential for the subordination of property to life. Under coöperation *humanics* becomes more important than *mechanics*. For the same reason, the coöperative movement does not allow those who invest their money in the business to secure speculative profits: all profits are returned to those who use the business. in proportion to their patronage. This prevents people from speculating in the stock of the coöperative movement. As Dr. Warbasse, the prominent coöperative leader in America, has well

stated: "Coöperation treats capital the same as capital treats labor; it hires it at the cheapest price. The capitalist system makes labor the servant of capital; the coöperative system makes capital the servant of labor. In Great Britain before the War, the rate paid share-holders was from five per cent. down to two and one-half per cent. It is entirely conceivable, and would be in the nature of Cooperation, that interest be eliminated altogether. Interest is now paid because capitalistic business pays interest. In many coöperative societies of socially minded members no interest is paid."

The third principle (listed above) is undoubtedly the most important because it eliminates profit from business. Instead of profits going into the hands of the proprietor there are no profits. Virtually the customer has purchased the article at the point where no profit is made. Since that cannot be determined in advance and since money has to be deducted for expansion, the excess charge is returned at the expiration of a fixed period. When one buys something at a coöperative store he purchases what he has already paid for through his stock membership. He pays again in order that the article may be replaced. Actually he pays more than it takes to replace the article but this is later returned to him. In a capitalistic enterprise this excess "velvet" would go into the pockets of the owner of the store; under coöperation it goes into the pocket of the man who buys the goods.

It is just as if a man had been in the habit each week of purchasing on the newsstand a magazine for twenty cents. His wife suggests that they take out an annual subscription at five dollars but that each week the husband deposit in a box the twenty cents for the magazine. If this is done regularly, at the end of the year the box will contain ten dollars and forty cents. The family has made a saving of five dollars and forty cents. Capitalism permits the excess charges to go into the hands of the few. Coöperation eliminates this waste and organizes society on a non-profit basis.

The fourth principle prevents coöperation from degenerating into an exclusive profitable group for the few. The only reason why any one would be refused membership in a coöperative would be because he joined the society in order to harm or destroy it. In order to start the cooperative in the first instance, it is necessary to raise some capital, and members therefore have to deposit some money. It has been discovered that if every one is asked to keep a little money in the business it not only enables the society to expand faster and thus reduce expenses but it keeps up the interest of the individual member in the management and efficiency of the coöperative.

It has generally been found safer to sell goods at the market rather than cut prices immediately—although some cooperatives have been successful in following the other method. It has also proved advisable to keep constantly educating the membership on the aims and principles of coöperation. At best, it is usually a small minority that run any particular coöperative but they are the ones who are most deeply interested. Education stimulates an increasing number to become interested. Naturally, if federation with other societies can be achieved, it means ability to make purchases on more advantageous terms and it means a stronger organization.

The ordinary coöperative society has a board of directors elected by the membership, who serve without pay. Then there is usually a full-time salaried executive. In England, when a new executive is wanted, advertisements are often placed throughout the entire English-speaking coöperative world so that the best possible man can be secured.

Usually an educational committee is also appointed. This committee organizes evening classes, arranges popular lectures and instruction in the principles of cooperation. Sometimes the coöperative arranges technical courses in accounting.

As a concrete example of what one society is doing, consider the illustration Dr. Warbasse has cited in *What Is Coöperation?*

"The United Coöperative Society of Fitchburg, Massachusetts, was started in 1910 with \$1100 capital and less than a hundred members. Fitchburg has 43,000 population. They opened with a small grocery store. The turnover averaged about \$1,500 a month the first year. Two years later a second store was opened. A third store was opened in the fourth year. In the seventh year a fourth grocery store was opened, a meat store, a shoe store, a men's furnishing store, a bakery, and milk department. Now the society has 580 members and \$18,000 paid up capital. In 1925 its total turnover was \$285,000, the surplus-savings were \$12,000, and the reserve and undivided surplus savings \$25,000. A coffee roastery has been added. Its creamery pasteurizes and bottles milk. This is a simple example of the business done by an average coöperative."

Perhaps the strongest argument in favor of coöperation is the ethical one. We are living in a social world. Each individual is more "other" than he is himself. He is the complex product of every influence which has made its register on his personality from the cradle to the grave. Life itself therefore becomes a great coöperative enterprise in which each one is molded and supplemented by many others. This is why it is impossible to live an ethical life apart from one's neighbors. A hermit can be highly moral in the desert wilderness but if he should isolate himself from contact with any other personality from the time he was born until he died,

he would be living a highly immoral life. No one can be good wholly apart from his neighbors. So long as a single neighbor is suffering or starving, can we be genuinely happy?

In this world we can make adjustments through negative and positive techniques. It is theoretically possible to take and hold property for ourselves by fighting, by war, by exploitation. These are negative forces. Economic competition which involves the failure of even one individual or one business is to some extent an economic waste. Coöperation is a positive technique; it creates efficiency not by tearing down but by the united action of all for the benefit of all.

In the modern world we find, among others, two deep-seated urges: the desire for possession or for property, and the desire to serve or to help society. Cooperation satisfies both of these desires. Every coöperator helps not only to secure more of the good things of life for himself but for all. To-day, under capitalism, there is a tendency for men to get wealth at the expense of others. To the extent to which that is true, therefore, the more I get the less another has. Under coöperation, the more I have the more every one has: I succeed only in proportion as every one else succeeds.

It may be charged that coöperation is materialistic—that it is pure selfishness. The charge is that it is mainly providing men with food, clothing, housing, and material wants. Actually, however, the greatest thing with which it is concerned is human nature and human personality. Cooperation is built on the great spiritual values of friendship, service, trust, and brotherhood. Cooperation is for all and works with all; there are no barriers, no exploited classes. The beauty of coöperation is that it is not doing welfare work *for* some one else, it is a mutual inter-play of good-will, of positive coöperative achievement.

A boy once retorted to his father: "You say I should help others, but what does that leave for the others to do?" Henry Ford answers this question by saying that it is unnecessary for any one to help others provided each helps himself. Coöperation, on the other hand, says self-help is necessary but in team work: build a system where each helps himself by helping all.

A very great desideratum to-day is to substitute a higher motive than selfish economic gain. This, as we have seen, coöperation does. Nearly two thousand years ago Jesus promoted the most radical movement the world has ever seen. Coöperation helps to perpetuate the spiritual values of service and sacrifice, and at the same time it decreases poverty and enlarges the wealth of all. Here are a few of the things which it has accomplished. A coöperative coal company in a city of a million saves three

hundred thousand dollars a year; all the coal dealers in the city have been compelled to reduce prices. A cooperative creamery in Minneapolis reduces the price of all the milk sold in the city and returns to its members \$80,000. The British cooperators purchase American wheat and ship it to England and still secure their bread at about one-half what it costs the American worker.

It is small wonder that almost no careful, honest student of the subject can be found who will oppose the cooperative movement. It has been endorsed by Republican, Democrat, Socialist, and Communist parties in the United States as well as by the President of the United States, the bankers, and the labor unions. Is there any other movement that has received the united backing of radicals, extremists, and conservatives?

IV. CONSEQUENCES

I. KINDS OF COÖPERATIVES ⁶

It is instructive to examine some of the other fields, outside of the distribution and production of commodities, in which the coöperative method is found in actual operation.

Housing

Housing is developed in three different ways. (1) Houses are built by landlords to sell or to rent to tenants. (2) Cities and towns build houses to rent to their citizens. (3) Individuals and societies build houses for their own use. The latter is the coöperative method.

In New York City more than 90 per cent. of the people live in somebody else's house, and most houses are not built to live in but to rent to tenants. In Europe the landlord business is about played out. There are very few houses being built by private individuals for their own residence or even to rent for profit. Most of the house building is done by municipalities, by corporations, and by coöperative societies.

The coöperative houses are of two kinds. Some are built by societies which conduct stores and other supply enterprises, and with some of their surplus-savings they build houses which they rent at cost to their members. The consumers' society of Hamburg, Germany, with 130,000 members, 275 retail stores, shops, factories, 1,600 acres of farm land, banking, insurance and many social activities, owns over 140 blocks of buildings containing over 1,200 dwellings. It has also groups of detached houses, with gardens, in the suburbs of Hamburg. Many German coöperative distributive societies thus go into housing. In fact the com-

⁶From *What Is Coöperation?* by James P. Warbasse (Vanguard Press, New York, 1927), pp. 37-72.

mon name used by German distributive societies is "Konsum-, Spar-, und Bau Verein," indicating that they are organized for banking and house building as well as for distribution.

In Switzerland, Germany, and many other countries, coöperative societies are organized for the special purpose of house building and house owning for their members. Most German cities have such societies; there are 4,000 in Germany. This is the most efficient and perfectly organized form of housing.

Let us look at the Workingmen's Coöperative Building Society of Copenhagen, Denmark. This society builds blocks of houses containing about 215 apartments each, which embrace a whole city block, with a large and attractive court yard in the middle. It has also an attractive suburban village. It is a member of a Danish federation of housing societies. This Copenhagen society has over 3,000 members. It has already built over 2,000 homes in apartments and has over fifteen different groups of buildings. It owns many acres of land upon which to continue its further developments. These societies have their own bureau of architects, workers, door and window factory, brick kilns, cement works, paint shops, tile factory, and water pipe factory. Often such housing societies have a central steam heating plant for their detached houses.

In the suburbs of Berlin are many such societies with charming gardens and floral decorations.

Nuremberg has an especially beautiful housing development.

One of its societies has a "garden city" in the outskirts of Nuremberg. The society has 2,400 members and some 800 houses. There is always a large waiting list to demand more building. The payment of 200 marks entitles the member to a house. After that he pays about 40 marks monthly for a four or five room house with bath. The society owns a brick kiln and saw mill. The houses, with their gardens, are charming as well as comfortable, and vastly superior to those occupied by workmen of the same occupations in England, France, or America.

One of the interesting housing societies in Switzerland is at Basle. Here is a village, called Freidorf, with 150 attractive houses covering an area of twenty acres. The society owns everything including the park and streets. It has a central communal hall which contains meeting rooms, restaurant, school, theater, and gymnasium. Fruit, lime, and walnut trees border the streets. Each house has a garden.

Many such societies employ gardeners and florists. They also carry on banking in the interest of the members' credit needs.

A true coöperative housing society is a corporation which owns the buildings in which the members live. Houses or dwellings are rented to the members on long leases. Some rent for 99 years; some rent for 999 years. The lease is for so long a time that it practically is the same as ownership, only the property cannot be sold by the member.

In order to join a housing society one must put in some money to pay for shares. The amount varies in different countries. Usually it is the equivalent of the rental for a year. The rest of the money is borrowed or raised on mortgage on the property. In some countries, such as Germany, the land is often donated by the government. This makes it possible to have very low rentals. I have seen good coöperative houses rented to railroad workers in Germany for one-fifteenth of the workers' wages. In America, workers pay about one-fourth of their wages for houses not as good.

In European countries the housing societies usually have more members than dwellings, so that there are always members waiting for houses. If a member who has a house wishes to move away the society buys from him his shares at par and releases him from his unexpired lease. The property is then leased to another member.

Many housing societies also conduct stores in one of their buildings or rent space for stores to the local consumers' societies of which the tenants are members.

True coöperative housing is developing on a large scale in continental Europe. It is actually giving the people better houses than they ever had before. By building houses for use, the profits of construction and contractors are cut out. The problem of ground rents is solved. The individual cannot speculate in land. He rents the home from his society which holds title to it, and he may have it as long as he uses it.

It can easily be calculated that people who can afford to pay rent, and that means everybody, can afford to own their own home. People who can afford to live in a house, if they only knew it, can afford to own, on a coöperative basis, the house they occupy. In New York, the average tenant pays enough rent in ten years to equal the value of the house. This means that every ten years he buys the house from the landlord, and then makes the landlord a present of it.

There are all sorts of imitations, frauds, and substitutes for coöperative housing. In England coöperative societies build houses and sell them to their members. The members are then at liberty to speculate in real estate and the coöperative feature disappears. This may be called coöperative house building, but it is not coöperative housing. In most European countries the municipalities build houses which are rented to working people. Cities, such as Vienna, in which the socialists have a political majority, are found discouraging coöperative housing and building municipal houses. I have studied with interest the difference between these two classes of buildings in many cities. They are striking and characteristic.

A block of coöperative houses looks like homes occupied by the owners; and that is just what they are. The premises are cleaner, there are apt to be flower-boxes at the windows, and there is apt to be a brightness and pride in ownership and occupancy which is not seen in the city-owned

houses. The city houses look like tenement houses; and as a matter of fact, that is what they are. The city is the landlord, and it is hard to make the tenant believe that as a citizen he is an owner. The complex political system, which stands between him and ownership of the house, convinces him that he has to deal with a landlord who is a long way from himself. As a practical fact the tenant acts as though he had no personal sense of ownership, which perhaps means that he has none. I know that I can tell a coöperative apartment house from a city-owned house a block away; and I think this means that there is a difference in the state of mind of the tenants.

The monthly "rental" paid in the coöperative house is apt to be less than in the city-owned house of the same type. In Copenhagen the co-operative society builds better houses at a lower cost and rents them at a lower price than the city.

In Italy the municipalities build houses for organized groups of workers, and sell them the houses outright. The individual buys a house or apartment by paying "rent" for about twenty years. Then the house becomes his own property. After that speculation becomes possible.

In America there is every sort of real estate development called "coöperative." Most commonly a real estate company builds apartments and sells each apartment to a separate owner.

Or a corporation of tenant-owners is formed. They then take long-term leases on apartments, which they may occupy, or sub-let for a profit. In some cases the stockholders of the corporation owning an apartment house occupy half of the apartments and rent the other apartments to non-stockholders at a profit sufficiently high to give the resident stockholders their rent free.

Still there are many genuine coöperative apartment houses in America. A difficulty which arises is that the value of the houses goes up and the members are tempted to take advantage of the situation and speculate. They sub-let at a profit or they sell at a profit, and the coöperative feature of the house is destroyed. In one case in New York the cost of an apartment in 1922 was \$2,210 and the owner in 1926 refused an offer of \$11,000 for the same apartment. The monthly carrying charge is \$71 and the owner sub-lets it for \$185. This is the sort of situation that is destructive of coöperation.

To preserve the coöperative principle seems difficult in a rising real estate market. The hunger for profits on the part of people, even though they start out as coöperators, destroys coöperation. In Europe this seems not to occur. In America it has caused coöperators to sell their property and put the profit in their pockets; and in some instances they have all sub-let their apartments and moved out. It can be prevented only by educating members in loyalty to the principle of coöperation, by providing in deeds and by-laws against speculation, or by having the property

held by large coöperative societies having holdings extending over a considerable area and controlled by a diversity of members the majority of whom would not be benefited by speculative sale or rental of a single house. The society should be so organized that, if a property is sold for speculative reasons, the profit goes into the treasury of the society and a new dwelling is provided for the members who had occupied the property that was sold.

An example of coöperative housing that apparently has overcome these difficulties is that of the United Workers Cooperative Association in New York. This association began with a small membership which leased one floor in a private house. As the membership grew, they took the whole house. Then they added a restaurant, library, and music room. In 1924 they started a coöperative camp in the country for vacation recreation. The association grew. In 1925 they bought an entire city block of vacant land in New York City, facing one of the city's parks. Within two years they had added so many new members that they increased their purchases to six city blocks. Now an apartment house with 963 rooms has been built on one of these blocks and is occupied by 339 families, and work is well advanced on the second block of apartments. Most of these apartments contain three, four, or five rooms, including a kitchen and bath. There are 57 rooms furnished as bachelor apartments. In the basement are an assembly hall, dining hall, library, gymnasium, and electric laundries. The members maintain stores, a kindergarten, day nursery, and social organizations.

The total cost of this first block of apartments was \$1,525,000. There is a first mortgage of \$1,150,000. The tenant members paid in \$250,000. The balance was raised by a bond issue. Tenants make an initial payment of \$250 per room. Monthly charges, covering upkeep, capital charges, and amortization of mortgage amount to \$13.50 per room. These are very high grade apartments, in a city with the highest rentals in the world.

To insure the success of a coöperative housing society requires that certain definite methods shall be followed. Economies in the purchase of the land and materials are important. The burden of initial high costs remains a burden forever. The capital should be borrowed on long term paper—twenty years if possible—with the privilege of earlier payment. Money is obtained by mortgage, by bond issue, by municipal loans, by stock issues, and by personal loans. The property must be owned wholly by the society in which the member owns shares, and from which he has his long term lease.

When a member wishes to withdraw from the society his shares must be bought back by the society and his lease terminated. For this reason the successful organizations always have more members than they have apartments so that there is a waiting list and an incentive to continue building and expanding.

If a society has not the money to buy back the shares, it may sub-let the apartment for the member's benefit. If by the end of a year the society has not been able to pay for the shares, then the member should be privileged to sell the shares to some one acceptable to the society and who signifies his intention to occupy the property.

In all respects the Rochdale principles are observed except that savings returns are not usually paid back to members. A moderate rate of interest is paid on share capital. Each member has one vote.

A member gets a certificate of stock and a lease. He may transmit these to his heirs who may become members and continue to occupy the premises. If a member finds it necessary to sub-let his home he may be permitted to do so for a certain limited period of time to a tenant approved by the directors. But the member is responsible for the monthly payments. A non-member who thus rents an apartment from a member should pay the current commercial value as rental; but it is best that the member who sub-lets the apartment should not be permitted to make a profit. If there is profit it is best that it should go to the treasury of the society. This at least should be the case if the sub-letting is for any considerable time. Sub-letting cooperative houses at a profit to the individual member soon breaks up the society.

Housing societies are organized the same as other coöperatives. The members elect a board of directors. In the ordinary society no full time manager is required. The directors attend to the business and collect the monthly charges.

The monthly charges which the member pays for his coöperative apartment are not rent. They are made up of (1) running expenses and (2) payment on principal. The first (1) consist of interest on share capital, bonds, mortgages, notes and other obligations; taxes; fire and liability insurance; light, coal, and power; wages to janitor and other employees; repairs and supplies; to pay dues or to own shares in a federation of housing societies which perform various services for its members; and to carry on social activities. The second (2) is really capital investment and consists of money paid to amortize the mortgage or mortgages, to pay off the principal on the indebtedness, moneys placed in a fund for reserve and expansion, and a depreciation fund if necessary. The first group of costs is the ordinary expense which the private owner of a house would have to meet. The second group of charges comprises the payments which the private owner of a house would make as investments if he still owed money on his purchase. The total of all of these amounts is collected monthly. It is often called rent; but it is not rent. People do not rent from themselves what they have bought and for which they are paying. It should be called carrying charges.

The members of such a society can usually look forward and expect

to see their monthly "rental" charges steadily grow less as principal and interest are reduced. Whereas the tenant who rents from a private landlord can usually look forward and expect the rents to increase.

It is customary to pay off 5 per cent. of the principal on the mortgage and other indebtedness each year. Thus at the end of twenty years all of the indebtedness is paid. As the capital indebtedness grows smaller the interest charges grow smaller. When all of the debts have been paid, the only costs remaining are the running expenses which any owner of a property has to meet.

A useful plan is to add to the expenses the cost of insurance of the members so that if a member is sick, out of work, or if he dies, there is a fund sufficient to meet his obligations for at least a year. This makes still further for permanence of abode.

If the monthly payments required from each tenant member should not be sufficient to meet all of the carrying charges, an assessment or an increase of the charges can be made at any time. It is best, however, to make plenty of allowance at the beginning in the original budget and provide for unexpected expenses.

There are certain expenses which are met by the individual member, such as the interior decoration, painting, etc. of the apartment which he occupies. A reserve fund is created to purchase the shares of members who must move away and leave the society.

The depreciation fund, to meet annual expenses from wear and decay, is usually 1 or 2 per cent.

In a small apartment the directors act as house committee and attend to all matters which naturally belong to a landlord. In a large group with a block of apartments or a village of houses, separate committees for special purposes are elected by the members at a members' meeting. They all serve without pay. Some societies employ a bonded real estate firm to collect the dues from members, hire employees, and make purchases. It is best for the members to do these things themselves.

The best housing societies have all of the members serving on some special committee. The following committees are found at work in different societies: social activities, drama and entertainment, education, gardening, play grounds, stores and bakery, central kitchen and restaurant, laundry, refrigerating plant, garage, nursery and dispensary, and servants. Joint arrangements may be made for part time services of maids, cleaners, seamstresses, nurses, kindergarten teachers, etc. When people begin doing things together there is no end to the things they can learn to do.

The social and educational committees play an important part. They hold meetings and provide lectures, debates and classes, and carry on activities to keep alive the feeling for coöperation.

New members are elected from a waiting list. In a large society,

they are usually passed upon by the directors. In small societies the candidate must be approved by three-fourths of the membership as well as by the directors.

Provisions are made in the by-laws for dissolving the society when this becomes necessary. It is customary to sell the property and divide the proceeds among the members in proportion to their stockholdings. A society in New York is now going through this experience. Their property has increased greatly in value. The palms of the members itch to get hold of the money that is offered them. They are selling out and the society will disband. The increase in value really belongs to the community. If the society provided in its by-laws that if they sold out, the members should receive back with interest the money they had paid in, and the proceeds of the sale above that amount should be given to the community in the form of cash or a library, a playground, or park, coöperative housing societies would not be so tempted to break up house-keeping when prosperity overtakes them. The solution of this problem is the large society, with widely distributed and diversified ownership, or housing combined with other cooperative activities.

Coöperative Banking

Coöperative banking is banking for the service of the depositors and borrowers. In the United States are over 31,000 profit-making banks. The stockholders have invested in these banks about \$2,500,000,000. But the depositors have in these same banks \$36,700,000,000. This means that for every \$1 that the stockholders have put in, the depositors have put in nearly \$15. The banks do business and make their profits with \$1 of stockholders' money and \$15 of depositors' money, yet the stockholders are the fortunate ones who get the large profits made by the banking business. The depositors furnish the money; the stockholders use it for themselves. The coöperative system of banking, on the other hand, provides that the depositors and borrowers shall get the benefits. Stockholders are treated as depositors.

There are many kinds of coöperative banking. Much of it does not carry out fully the three Rochdale principles. But the speculative, profit-making idea is largely gotten rid of, and service is its chief aim. The best form of bank pays the depositor interest and lends money to the borrower at a somewhat higher rate. Both depositor and borrower are members and stockholders. The difference between the two rates of interest is used for overhead expenses and to build up a reserve. What is left over is net surplus-saving. This is divided as a savings-return, between the depositors and the borrowers in proportion to the interest they receive and pay. This return is based upon the amount of money and the time it is deposited or borrowed.

In coöperative practice there are exceptions to this method. Usually the bank actually makes profits and pays them in the form of dividends to the stockholders. The borrowers and depositors, however, in such banks usually have to be stockholders; and one vote for each member prevails.

Cooperative banking was founded by Schulze-Delitzsch, and Raiffeisen. By the banking methods which these men established, the German farmers were able to get out of the hands of the money lenders and lift themselves up from the dreadful poverty which swept through Europe after the wars of Napoleon in the first half of the nineteenth century. In Europe they are called "popular banks," "credit banks," and "peoples banks"; in the United States, "credit unions." Usually they begin in a small way. They have spread to every country. Germany has over 20,000 credit societies. Most of the farmers of Denmark do their banking business in these societies. Russia has over 25,000 such banks. The total number of these banking societies in the world is around 80,000 with a membership of 25,000,000 and an annual business of many millions.

A new kind of coöperative banking is now growing very large. It is done through the ordinary consumers' coöperative society, which organizes a banking department. Each store serves as a branch for the bank, where members make deposits and draw out money. Members are encouraged to allow their savings-returns to be placed to the credit of their account in the bank. In the coöperative stores of many European countries one sees the members drawing out money to make purchases and depositing what is left of the weekly wages after the family needs are supplied. The central national wholesale or union acts as the central bank. Thus, for example, the Banking Department of the English Wholesale Society in 1926 had a turnover in deposits and withdrawals of nearly three billion dollars.

A peculiarity of the Raiffeisen type of credit bank is that it lends money on character. A member who has no property at all to offer as security can borrow money. The losses among cooperative banks and the failures are less than among the capitalistic banks. This is true even in the United States where coöperation, in all forms, is backward. It is noteworthy also that people find banking not the complicated and difficult business it is supposed to be. Banking is neither difficult nor complicated, especially when it is used simply for the service of the people concerned. With sound bookkeeping and auditing, it succeeds in the hands of any group of people who are willing to use ordinary common sense. There is no mystery about it. In fact the average housewife, who takes her husband's wages and makes them feed, clothe, and house the family, solves difficult financial problems every day, which train her in the understanding of fiscal business.

Coöperative banking in the United States is largely in the form of

the building and loan associations and credit unions. Building and loan associations are cooperative banks for the purpose of home-building.

There are in the United States more than 12,000 of these institutions, sometimes called also savings and loan associations. Their assets amount to more than five billion dollars, and their total membership about 10,000,000. They are non-profit organizations for the mutual advantage of their members. The first of these associations was started in 1831. Now there are one-third as many as there are commercial banks. Their failures have amounted to less than 1 per cent. while the failures of the commercial banks have amounted to 6 per cent. These organizations are not conscious of their coöperative character and have never connected themselves with the coöperative movement.

The credit union begins as a small cooperative bank. It is similar to the Raiffeisen banks of Europe, and is usually organized by some group already held together by some other organization or by people who have a common interest and acquaintance with one another. About half of the states in the United States have a credit union law under which such organizations are incorporated. Each member must subscribe for at least one share of stock and pay for the same in cash or in monthly or weekly installments. Twenty people with \$5 each can start a credit union. In some states seven people are enough. The union is under the supervision of the state banking department, just the same as the big banks.

The par value of stock is usually \$5 a share, which may be paid for at twenty-five cents a week. The purchase of this stock is the method by which the member makes his savings. If a member would save a dollar a week, for example, he subscribes for four shares and pays in twenty-five cents a week on each share. In most states with a credit union law the member may also have a deposit account in which he may deposit irregular amounts at irregular intervals. Dividends on shares are figured semi-annually or annually. Interest on deposits is usually figured monthly and added every three months. The interest rate is usually somewhat lower than the dividend rate. The member treats his deposit account as a fund for current use, but his dividend account is regarded as a more permanent saving.

Most of the surplus-savings of the credit union are paid back as dividends on stock. Since the stock really represents most of the capital and since borrowers have to be stockholders the borrowers and depositors thus get back the money that in capitalistic banking would constitute the profits for the stockholders who furnish but a minor part of the capital. The credit union is usually allowed to charge borrowers 1 per cent. a month interest, or 12 per cent. a year. After a union becomes established and strong it often reduces this rate. Twelve per cent. seems large. But it must be remembered that the credit union is for the small borrower

who cannot get money from the commercial banks. Without the credit union he must go to the "loan shark" who charges him anywhere from 100 per cent. up to the sky. A recent investigation in Chicago shows "loan sharks" actually getting \$1,080 interest on a loan of \$30. One case disclosed an interest rate of 3,600 per cent. The Russell Sage Foundation reports a case of a man who paid \$312 interest on a loan of \$10 and was then sued for the principal! It is estimated that from 7 to 15 per cent. of the people of the United States are in a position to borrow money at the normal legal rates; the rest must go to the usurer. The credit union is organizing to take care of the working man who says: "I am out of work. The next season of work is six weeks off. My baby is sick. My wife needs clothes." This man by joining the credit union of his labor organization can borrow the money necessary to save his self-respect. . . .

In 1925 there were in the State of Massachusetts 86 credit unions with 55,000 members and assets of \$8,679,700. At present there are over 300 with more than 87,000 members and \$12,000,000 assets. There are also 220 building and loan associations with over \$425,000,000 assets. The Telephone Workers' Credit Union, in Boston, has over 13,000 members and total assets of over a million dollars. About half of its members are borrowers and about half of its capital consists of deposits.

The Russell Sage Foundation in New York is active in promoting the credit union movement in New York. In 1924 the total membership in that state was 64,399 with assets of \$10,543,076; in 1927 the membership was 69,820 and the assets \$12,048,277.

These organizations are going a long way toward teaching the people how to take care of their credit needs.

Insurance

Insurance of almost every kind is provided by the coöperative method. The Joint Insurance Department of the English and Scottish Wholesale Societies, now known as the Coöperative Insurance Society, provides life, fire, accident, burglary, fidelity, employers' liability, live stock, plate glass, automobile, boiler, electric plant and other kinds of insurance. This society is steadily growing. Its last report (59th annual) shows income from premiums of over \$17,000,000 per year. The amount of business and the number of policies continues to increase each year. The society has \$30,000,000 in assets. The ordinary life section has 167,000 policies in force and the industrial section has 1,808,000 policies. The society has 169 district offices in various parts of the country with 2,481 full time employees. This insurance is carried on wholly in the interest of the insured. The surplus-savings are returned to the insured. "No portion of the profits has ever been distributed among the stockholders."

The Health Insurance Section of the English C.W.S. has a membership of over a quarter of a million. It provides free dental treatment, legal assistance for recovery of compensation, convalescent home benefits, benevolent grants, compensation during sickness, and maternity benefits.

The consumers' cooperative societies of England are more and more making use of the insurance of the Cooperative Insurance Society. One method is to insure whole societies without medical examination or formality. Every purchasing member of an insured society is thus insured without the payment of any premium by the individual. The retail society simply pays the Insurance Society one penny a year for every pound sterling of purchases made by its members. This system insures all the members. The amount paid to the widow, widower, or children is based on the average yearly purchases for the three years before the member's death. The needs of the family are thus judged by what it consumes. This insurance scheme also promotes loyalty to the society.

The German societies have an especially efficient scheme for the insurance of employees. In the Scandinavian countries practically all of the members of cooperative societies are getting the benefits of insurance. In the United States cooperative insurance is found especially among the farmers. They have been particularly successful with life insurance. There are in the United States about 2,000 cooperative fire insurance societies among the farmers. They carry insurance of around \$6,000,000,000, which costs the insured about one-half the rate charged by the profit-making companies.

The mutual insurance societies in the United States, with assets running into the billions, are a close approach to cooperation. They practise proxy voting and have centralized control, and thus fail to develop any movement toward democracy. They resemble cooperative societies in that they make no profits for stockholders. They are truly service organizations.

Insurance at cost, in the interest wholly of the insured, is proving to be practical, and if the insured can learn to take care of their own business, it presents advantages over insurance conducted in the interest of stockholders.

Recreations

Recreation is what most people are interested in, next to life and love. What to do with the leisure time is the big question. Cooperative societies are trying to find the answer. The "houses of the people" in Belgium are buildings of the cooperative societies for both education and recreation. There are found lectures, plays, motion pictures, concerts, and sports. Choirs and orchestras are organized in many societies. The society of Ghent has three bands and several choral groups. The United Coop-

erative Baking Society of Glasgow has bands and a children's chorus of several hundred voices. The Ripley, England, society has recently bought the new Victoria Theater.

In many countries farm houses and country mansions are owned for recreational purposes. The Calderwald castle of the Scottish Wholesale and the fine old mansion house of the Plymouth Society at Whymptstone, with its 2,500 acres of grounds, are examples.

Motion picture shows are run by many societies. Coöperative films and dramas are multiplying. Cooperative opera houses and theaters are found in some countries. One of the best theaters in Berlin, the "Volksbühne," is owned by the consumers, the patrons. The Theater Guild in New York is cooperative except for the voting privilege which is based on stock.

A successful coöperative camp and vacation ground is owned by the United Workers' Cooperative Association in New York. The association owns a beautiful wooded slope of 250 acres overlooking the Hudson River. The houses and tents accommodate over 700 people. The dining hall accommodates 800 guests. During the last summer there were often more than 1,000 guests at a time. The costs are much lower than in other summer resorts, but still the association has accumulated a large surplus. Over \$50,000 has been spent within the past year for new buildings, sewer system, and a great recreation hall. The most modern electrical appliances are used. Entertainments of every sort are held. Much attention is given to music. A well known composer has trained a chorus. This society also owns coöperative houses for its members in the city.

The "Elanto" society at Helsingfors owns a wooded island in the harbor which is wholly given over to recreational purposes.

Most coöperative recreational work is carried on by consumers' societies, but there are many special societies for special forms of recreation.

The Press

The press is usually owned and controlled in the interests of profit business. It serves those interests. A press owned and controlled by the printers will serve their interests. If the reader would have literature and news that are free from propaganda and bias that are opposed to his interests, then the reader must own and control the press that supplies him. Unless he does this, he may count with certainty upon having his hunger for literature and news exploited for somebody else's sake. The opportunity is too good not to be taken advantage of. It will be used just as surely as the merchant uses it to make profits out of the reader's need of goods, as the banker uses it against his need of credit, and as the tobacco business uses it to stimulate his hunger for cigarettes.

We should not make the mistake to think that a press run by a political government is for the consumers. It will be found carrying on propaganda and biased in the interest of the ruling political faction.

A true cooperative press is that which is owned by the consumers and which represents the consumers—the readers.

Of course, a cooperative press does not guarantee good literature; it only guarantees that such literature as is published shall be controlled by the readers and, presumably in their interest.

Coöperative publications are issued by distributive societies or by societies for the special purpose. In all countries with a well developed coöperative movement there is a coöperative press, publishing a good number of papers and magazines. The "Cooperative Year Book" gives a list of 78 national coöperative periodicals, but in addition to this are several thousand papers published by local societies. Among these are daily papers, weeklies, monthlies, and books. The Printing Society of German Consumers' Associations (Verlags Gesellschaft) has a printing plant in Hamburg with 700 employees. It uses two tons of paper a day in purely coöperative printing. The Coöperative Printing Society of England does an annual business of \$1,250,000. During the past ten years it has paid back to its shareholder patrons over \$90,000 in savings returns. Much of these businesses is commercial printing.

None of this contradicts the fact that there are many excellent publications, issued for profit or for the satisfaction of editors and publishers, which are, perhaps, superior to anything that the average readers, if organized, would create for themselves.

Baking

Baking is one of the fundamental needs that is met by the coöperative method. The Belgian coöperative movement began with bakeries. As the Belgians said: "We are bombarding the forts of capitalism with loaves of bread." In most countries the bakery appears early in coöperative development. There are hundreds of European cities, and some American, in which the cooperative bakery is the best equipped, the cleanest, the largest, and produces the best bread at the lowest cost to the consumer.

The largest bread bakery in Great Britain is that of the United Coöperative Baking Society of Glasgow, Scotland. It has 120 ovens, with the most modern machinery. One of its members is the Scottish Wholesale, from which it gets flour; and, since this latter society is a large producer of flour, its access to raw material is very close.

Most of the German societies have bakeries. The bakeries of the societies of Stockholm and Helsingfors are the best in Scandinavia. Some coöperative bakeries in America and Russia are not clean nor inviting; but such are exceptional.

The cooperative bakeries keep down the price of bread and improve its quality. The profit bakeries do not like them; they are called "a menace to the baking business."

Milk Distribution

Milk distribution has more recently been taken in hand by coöperative societies. They begin by first learning how to purchase and handle milk. Having gotten their customers they make a contract with the farmers to supply the society with so much milk of a certain quality. In Europe it is mostly distributed in bulk. In the United States, the coöperative societies establish a creamery where the milk is treated, pasteurized, bottled, etc. The Franklin Cooperative Association in Minneapolis is the largest milk business in that city. When it started in 1921, it had a small creamery and eighteen wagons. It began business by paying the farmers a cent a quart more for milk than they had been getting, distributing milk to the consumers at a cent a quart less than they had been paying, and distributing a better quality of milk—even better than the legal standard demanded. It has prospered.

Many societies in Europe now own their own farms and cattle and produce milk for their members. Such societies are found in England, Germany, and Switzerland. The society at Basle distributes more than half of the milk consumed in that Swiss city.

Restaurants

Restaurants are run by general distributive societies, and also by special restaurant societies. Many large societies have restaurants for their employees. The British Wholesale has a restaurant in Manchester in its office building, which feeds 1,000 people at a time. One can travel from one end of England to the other and eat each meal in a clean and satisfying coöperative restaurant. The Amsterdam Coöperative Kitchen sends out hot meals to the homes of its members and conducts also a restaurant.

Some consumers' societies in the United States have excellent restaurants. The Consumers' Coöperative Services in New York is a growing society which conducts six restaurants, a fancy bakery, and delicatessen stores. It does a business of \$500,000 a year and gives much attention to education. Incidentally, it may be mentioned that the members of this society have organized a coöperative bank (credit union), to show the natural tendency of expansion.

Laundries

Laundries are carried on by bakeries, factories, and other coöperative enterprises for their employees. There are special societies for only

laundry purposes. Large laundries are also run by general distributive societies. Their number is constantly increasing.

The London Coöperative Society, for example, has two big laundries, each equipped with the best modern apparatus. One laundry has a single machine which irons 3,800 sheets a day. Another machine irons 6,000 collars a day. The laundries of cooperative societies take out of the home the work that the housewife once had to do and perform it as a communal enterprise.

Transportation

Transportation is carried on by many cooperative societies by means of motor omnibuses. Some societies own railroad cars for their own produce. The French Wholesale owns two hundred tank cars for carrying wine. The English Wholesale once owned two ocean steamboats, but discontinued them. The German Wholesale at its factories at Groba has its own tracks and locomotives. Steamboats and ocean-going vessels are owned by many societies. Transportation is being slowly developed from small beginnings.

Road building is done by coöperative societies in Russia. But none of it approaches in magnitude the transportation and highways such as profit business and governments have developed. There are no railroad lines yet owned by the travelers and shippers.

Communication

Communication by post and electricity—that means the mail, telegraph, telephone, and radio—it seems, will sooner or later in all countries be run by the government as public services. This may be the best solution of this problem. But if there are objections to political control of utilities, it may be of interest to see what the people can do for themselves without the help of the political State. Already much has been done.

In the United States are more than 300 coöperative telephone societies among the farmers in the Western States. The farmers of a county or district incorporate as a non-profit concern. They put in a little money and buy instruments and wire. Often they put up the posts and wires themselves. Sometimes they use the top wire of barb-wire fences for the purpose. A farmer's house serves for the central station. The wife and daughter attend the switchboard. The service is very cheap and satisfactory. It teaches the farmers how to work together and makes better neighbors of them. These societies are very successful. Their fate often is that the big Bell company works an effective scheme and buys them out after they have proved their success. Then the coöperatives come to an end and the prices go up.

The mails in the United States were once carried by private companies. In Russia, cooperative societies have developed some postal service.

Power and Light

Power and light in most countries are developed as private or profit-making businesses or are run by the government for public service. But during the past few years cooperative societies have gone into this field. Some societies with factories and large industrial plants make their own electricity on a large scale. Some provide electric current for their members' use. In Russia, the Borovich-Valdai Cooperative Society, which covers a large district, has installed electric lights in most of the 400 villages of the district.

Over two hundred cooperative societies in Switzerland supply their members with electricity. They put a turbine wheel into a stream that comes tumbling down from the mountains, connect it with a dynamo, and send electricity into their houses for light, heat, and to run the sewing machines, churns, and grindstones. It seems not to be difficult for the people who use the electricity to make it for themselves.

In 1922, the French Cooperative Congress passed a resolution calling for the establishment wherever possible of cooperative societies for the supply of electricity, gas and water. Already a number of French societies provide these necessities for their members.

Fire Protection

Protection against fire is usually a municipal affair. But it is not beyond private enterprise. The Scottish Cooperative Wholesale Society, at its factories in Shieldhall, has a fire department which would do credit to any city. Often its engines and apparatus go to the service of the city of Glasgow when the city's apparatus cannot put out a fire. The Cooperative Society of Basle, Switzerland, owns many buildings and has its own fire department. This is so good that the reduction in fire insurance costs on the buildings is nearly enough to pay for the support of the fire department. There are many other cooperative examples of this sort.

Health Protection

Health protection, if it is to be of much use, has to be for everybody. Diseases are contagious—and so is health. To wait until somebody is sick and then send for a doctor, who is competing with the other doctors in caring for the sick, is a poor way to protect health.

No disease is wholly a medical affair. Poverty, for example, is more deadly than germs. As a matter of fact poverty is the great disease.

Health can be bought, if one has the money. Poverty is the stuff out of which thieves, strike-breakers, bums, and sick people are most easily made. Give people means to get the things they need and their mental and physical health is better.

The health of the families of the Rochdale Pioneers improved as their society succeeded. Many a cooperative society has been started because the people were aware that they were suffering from the adulterated foods the tradesmen were selling

The Swiss Union has country estates which are used as convalescent resorts. The British coöperative societies buy farms and fine estates and use the houses for sanitariums. The English Wholesale Society, at its coal mines at Shilbottle, Northumberland, has houses for aged miners where they may live free of rent and taxes. The society of Ghent, Belgium, has similar homes for its aged members. The Hamburg Cooperative Society "Produktion" has an estate with a convalescent home for children on the shore of the Baltic Sea, which cost \$250,000, and which accommodates over 1,000 children a year for a period of four weeks each. The societies of Berlin, Helsingfors, and of many other large cities have similar places of recreation.

The coöperative societies of many countries provide food for the members and pure milk for babies, give the members good homes at cost, send children on vacations to the country, furnish a six weeks' vacation for mothers before the baby is born, and give sick benefits and unemployment pensions to workers, free of extra charge. All of these things are for the protection of the health of the members, and are, perhaps, more important than medical treatment.

There are also all sorts of medical services furnished by cooperative societies. A good example is the society of The Hague, in Holland. It is a workingman's distributive society with a department for insurance against sickness and death. This medical department has about 50,000 members who pay from one to seven dollars a year for service. This is of a high class. More than thirty doctors are employed. These include specialists in the various departments of medicine. The society has a well-equipped clinic with laboratories and departments for every kind of examination and treatment. Three large drug stores supply medicines. A member who is sick receives medical and nursing care, free food from the stores, money in place of the wages he loses, and in case of death burial is provided and the family is paid life insurance.

Many cities have such societies. The results are good. The health of the members is improved. Sickness in most families is very expensive. Usually the doctor is not sent for till the patient is very ill. That is often too late. In these coöperative societies the members may consult the doctor at any time. They may go for examinations or advice whenever they wish before they become ill. The cost is no more. The doc-

tors are employed to keep the people well. This is the scientific method. It seems to be good also for the doctors. Instead of competing in the market of the sick against one another for patients, the doctors in these societies are paid a fixed salary. For this all that is expected of them is to do whatever is best for the health of the members.

In Minneapolis is a coöperative society which uses some of its surplus-savings to conduct a children's clinic where free advice is given to mothers for the better care of their children. Some societies use a part of this surplus for medical care of the employees.

In India are coöperative societies organized for the extermination of mosquitoes. They dig ditches and drain swamps and do other things necessary to protect the members against the diseases carried by insects.

Courts of Justice

Courts of justice are supposed to be necessary government functions. But they can be carried on by the people without any help from the political system. Many societies have a "grievance committee" to hear disputes between members and the society. One American society has a "trial committee." This idea of a non-political court is not new. In China, for thousands of years, most disputes have been settled out of court by arbitration. Ireland had courts, in 1921, which had no connection with the British Government. The State of New York has a "lay court" which conducts all sorts of civil cases. There are no judges nor lawyers. The two parties to the case choose their referee. Each party conducts his own case and tells his own story. The Arbitration Society of America is promoting these non-political courts.

The people of India, in revolt against the British Government, have developed such non-political courts. These are juridical coöperative societies for the settlement of disputes by arbitration. They are steadily increasing in number. A committee hears and acts upon disputes. They have the power to call witnesses, administer oaths, require the production of documents, and issue orders regarding the payment of costs. In whole districts in India these court societies are federated to form a union which conducts a higher court of appeals, called the Provincial Court of Arbitration.

The results of these courts are reported to be highly satisfactory. The real power behind them is the public opinion in the villages. The people respect the courts so highly that a man does not want to disobey their decisions and get the bad opinion of the public.

It would seem possible for the coöperative movement to go on organizing independent courts. In a community or state, where most of the people are in the coöperative societies, they may have their own courts for all purposes.

Ideas

Ideas can be collected and distributed coöperatively as well as material and services. In the Teachers' College, Columbia University, is the headquarters of the Industrial Arts Cooperative Society, formed to supply ideas for teachers. New suggestions for presenting and making interesting every subject that is taught to children are collected, cataloged and made accessible for the members who need them in their teaching work. This society now has a membership scattered pretty much over the whole country.

As a Business Method

Coöperation is a simple business method. It is business with the profit taken out. That leaves service as the reason for carrying on the business. Profit-making makes business at least more complicated, if not more difficult. Cooperation enlarges the ownership of business to include the patrons. An ordinary profit corporation is owned by some stockholders—let us say, a shoe factory. The shoes are sold to other people for more than they cost and the stockholders get the profit. If now the stock should all be owned by the people who use the shoes; if the profits were given back to these stockholders in proportion to the money they spent for shoes, and not in proportion to the money they had invested in stock; if not more than a regular low rate of interest were paid for capital which the members had put into the business; if each member had one vote only, no matter how much stock he held; and if democratic control of the business were in the hands of the stockholders—then the corporation would be a coöperative society. Coöperative societies have sometimes developed in this way from profit corporations. Big public utility corporations, especially electric power and light companies, are striving for what they call "customer ownership." *The Wall Street Journal* estimates that the customers will furnish more than one-third of the capital necessary to supply the eight billion dollars for public utility expansion in the United States during the next ten years. Many economists now advocate the expansion of consumer ownership as a means to cheapen public necessities and to eliminate the manipulations by politics. It may be possible that the present enlarging distribution of stock-ownership of corporations in the United States might move in this direction. It might create a corporation that has as many stockholders as it has patrons, each class being composed of the members of the other.

If seven hundred people organize a cooperative society and each puts in \$10, they have a capital of \$7,000. If they run a store and do a business exclusively among themselves of \$140,000 during the year, and charge current retail prices, they will have a net surplus-saving at the end of the year of say \$5,500. This presupposes good management and

other things necessary for success. Now what return have they made on the money they invested? In terms of profits, it would be \$5,500 on \$7,000 or 80 per cent. That is the profit advantage of their business. The savings-return paid on the total turnover, that is \$5,500 paid on \$140,000, would be only about 4 per cent. But the saving that they actually made, calculated on the money they had invested in the business, would be twenty times that. The average purchase of each member at the store was \$200 for the year. He received back in cash \$8. He had invested \$10. That is 80 per cent return.

These figures are a fair average for coöperative societies. They are taken from actual experience. They show the possibilities of this sort of business from the financial standpoint. If each stockholder spent on an average \$1,000 a year, that would mean that he spent \$800 outside of the store. If his cooperative society took care of all of his needs then he would have spent \$1,000 with the society, and his savings-return would have been \$40 for the year or 400 per cent on his investment of \$10.

People who are putting their money together and running successful cooperative societies are getting the advantage of these large returns on their investment. It is not income by saving; it is income by spending. The more they spend, the more they save. The average income that the capitalist receives on his investments is around 4 or 5 per cent. In Great Britain among the 1,300 societies connected with The Coöperative Union, during the hard times now prevalent, it is only 30 per cent. But still this is six or eight times better than the British capitalist gets.

The yearly wages paid British workers is £2,000,000,000. The total trade of the cooperative societies is only one-tenth of that sum. That means profit business gets nine-tenths of the workers' wages. If all of these wages were spent in the coöperative societies, the picture would be very different. Theoretically, by so doing, the workers would lift themselves into the position of the capitalists by the sheer amount of their savings.

The working people in the United States have some \$15,000,000,000 lying in the banks drawing less than 4 per cent. interest. This money, invested in successful cooperative societies, would constitute a revolution greater than that which any country has ever seen.

It is interesting that coöperative societies are sometimes started without capital. Service societies often need little. A Pennsylvania society was started with a bag of corn meal. In some instances the members have given their labor and created the necessary capital by their own united efforts. They have thus put up buildings and equipped them without money. The £28 with which the British Movement began was, indeed, small capital when we realize that it has now grown to an investment of £90,000,000.

It would seem that the people can acquire the industries for their own service if they organize to do so. It is not done by the big purchase of

industries, nor by having the State confiscate them. Possession can be had by getting it in the same way that the present owners got it. They began in a small way, made profits, and with the profits they bought more property. This went on slowly until the present great capitalistic ownership has been developed.

Coöperative ownership comes as the people begin, in a small way, to stop paying profits to capitalist business and to turn those profits to their own account. As soon as they begin collecting a surplus-saving in this way, it can be made to grow. The capitalist world is built upon profits. The Cooperative Society may be built upon savings.

2. PRODUCERS' COÖPERATION

Many students of society seem to feel that ignorance and shiftlessness are primarily responsible for most of our destitution. In a way this is a squirrel-in-a-cage philosophy, because we explain poverty on the basis of ignorance and ignorance on the basis of poverty and get nowhere. We are not sure which is cause and which is effect. It seems probable that poverty and ignorance are not the basic causes. Wherever a society has complete social justice and individuals secure adequate occupational remuneration there you will find a society in which ignorance and poverty are largely eliminated. There is danger that we shall ignore the fact that economic injustice is one of the primary causes of social maladjustment. As we have already seen, coöperation is valuable because it tends to remove a basic cause of suffering and poverty; it increases the size of the pay envelope. The word "coöperation," derived from the Latin, means literally a "working together." When it becomes a force in the nation's life all the people work together and thus secure their primary necessities at lower cost.

The British worker buys bread made from American wheat at half the price paid by the American worker. The United States Bureau of Labor Statistics show that in the largest American cities the average pound loaf of bread costs approximately eight and three-quarter cents; in Britain it costs four and one-half cents. This is partly due to the fact that British mills and bakeries are coöperatively owned. It is probable also that the coöperative movement provides better food and clothing for the poor than does capitalistic enterprise, for there is no incentive to adulteration, shoddy goods, or dishonest weight. In Minneapolis there has been a direct relation between the decrease of the death rate and the coöperative control of the milk supply. In Cleveland a coöperative coal company enabled many more poor people to keep warm than otherwise would have been possible by saving them in the neighborhood of \$3.00 a ton for fuel.

Producers' coöperation is a further step in the movement, although a

difficult one. In the United States and other countries there is a tendency for the worker to be dissatisfied with a position which relegates him to a mere productive cog in a mass production machine. He wishes to have more security, more adequate compensation, and something to say about the conduct of the industrial enterprise. Cooperative production satisfies these wants by establishing industrial democracy. The workers own and operate the industry in which they are engaged and distribute the earnings cooperatively among themselves in proportion to the contribution which each has made.

Albert Coyle, formerly editor of the *Brotherhood of Locomotive Engineers Journal* and a strong supporter of the cooperative producers' movement, has said:⁷

"The social justification for cooperative production and the growing trend toward industrial democracy is that the man who invests his life and his labor in an industry takes a greater social risk and should have a greater voice in it than the man who merely invests his money. When you stop to think about it, the man who only invests his money always keeps something back for a rainy day. The capitalist never risks poverty and starvation by placing his entire fortune in one industry. The worker, on the other hand, invests all that he has in an industry when he ties himself down to its routine. If the industry fails, he may find himself thrown out on the street in his old age, utterly unable to gain a livelihood in any other occupation. Gradually society has abolished autocratic control over political government, education, and religion. The last remaining citadel of autocracy is in industry. With cooperative production providing a safe and efficient road toward democracy in industry, there can be no social justification for the continuance of autocracy here.

"The moral basis for cooperative production is the dictum of Paul to his fellow-Christians at Corinth—'He who does not work, neither let him eat.' Or, in the words of Abraham Lincoln, 'No man has any right to eat his bread in the sweat of another man's brow.' The cooperator believes there is only one valid moral claim to the right to consume goods, and that is to have produced goods for the satisfaction of the wants of one's fellow-men.

"The practical foundation for cooperative production is the hard-headed matter of industrial efficiency. Absentee ownership of industry is criminally wasteful and inefficient. You will recall that three years ago Secretary of Commerce Herbert Hoover, as president of the Associated Engineering Societies of America, appointed his famous commission on waste in industry. The report of this commission shows that the average American industry is only about 20 per cent efficient. That brilliant electrical and human engineer, Mr. Walter Polakow, asserts that this estimate is entirely too high—that if the latent productive capacity of the worker were further taken into consideration, modern industry is scarcely more than 7 per cent efficient.

"We talk about securing a higher level of comfort for the people, but this can never be brought about until we produce more goods and those goods are

⁷ Report of the National Conference of Social Work, 1925, p. 317.

distributed with economic justice. Producers' cooperation fulfils both of these ends. It is a practical success because the worker will not release his best creative energies merely for money wages. He will not throw his soul into his job until he has a responsible interest in it. The most criminal thing about the modern industrial system is the way it has dehumanized the worker, making a mere routine machine out of him, and destroying that God-given creative instinct which makes labor a joy instead of a drudge. We talk about the superb craftsmanship of the workers of the Middle Ages, which is lost to modern industry. It can only be replaced when the worker again owns and controls his own employment, as did those guildsmen of the Middle Ages. And this in turn can only be brought about by cooperative production."

While coöperative producers' societies among the farmers are not strictly producers' coöperatives, because production is done individually and only the marketing is coöperative, nevertheless they have made headway in the United States and have advanced a step towards the cooperation of producers. In 1929 over two and a half billion dollars worth of production was handled through such coöperatives. More recently President Hoover's Farm Board has stated that it intends to increase farmers' coöperative marketing.

In many parts of Europe the producers actually have made a success of running factories, in some cases joining with the consumers' coöperative in marketing their production. In Italy, farms, ships, factories, and railroads have been run by producers' coöperatives. A great canal from Milan to the Adriatic Sea was built by a cooperative, and the majority of the metal work industry in Italy is conducted by producers' coöperatives. In Russia the workers have banded together, and are successful in producing a great many articles in coöperative factories from *samovars*⁸ to planes.

In the United States, producers' societies have usually failed. It should be recognized that it is far more difficult to start a producers' cooperative than a consumers' society. The capital required to purchase machinery and the sales force necessary to sell the finished product are difficult to secure. It probably takes managerial ability of a much higher grade. Then, too, the workers in a producers' coöperative, if they are successful, are likely to make large profits because they are selling to a wide group of people. The profits, however, go not to those who purchase but to those who produce. Consequently, the coöperative may evolve into a capitalistic enterprise. It may have a profit motivation in the interests of the few who run it. Some capitalistic concerns take over a coöperative name which they justify by sharing part of the profits with the workers. Usually the coöperative feature is secondary. One example of such a concern is the Leighton co-

⁸ A Russian hot water heater for tea.

operative industries on the Pacific Coast.⁹ John H. Leighton went bankrupt in the wholesale manufacture of ice cream and candy in 1916. His creditors allowed him two thousand dollars and he went to San Francisco to start a new business. He opened a dairy lunch and within ten months was able to pay his creditors in full. By 1918 the original investment of a few thousand had grown to a million and a half dollars and fourteen hundred employees. The monthly dividends have averaged 2 per cent but some units have paid as high as 40 per cent a month. Mr. Leighton allows employees, and employees only, to invest in the business. The employees loan money to Mr. Leighton, who declares dividends on the loan rather than giving a fixed interest. Mr. Leighton holds the voting stock which amounts to 1 per cent—and the rest of the stock is in the hands of the employees. In this way the employees receive 99 per cent of the dividends and yet control is vested in the hands of Mr. Leighton exclusively. However, there is a provision that if 7 per cent is not paid on the stock of employees for eighteen months, the business then goes to the employees and they continue to run the business until dividends aggregating 7 per cent have been paid. The amount of stock which can be purchased by an employee is based on his salary and length of service. Any one who leaves the company must turn in his stock and he immediately receives his original payment in cash. In every instance the available stock has been over-subscribed. Some of the local banks have such a high opinion of this stock that if an employee does not have sufficient money to invest they will loan him the full cost of the stock at the current rate of interest. Another interesting provision is that no individual salary paid by the corporation can exceed 5 per cent of the previous year's net profits. In 1928 this meant no salary was over \$18,000. Another proviso is that fines on dividends can be levied for failure to report for duty. In practice, these fines have been levied only in the case of employees who do not return at the end of their two weeks' vacation. The advantage claimed for the Leighton coöperative is that it combines one man management with distribution of profits to all employees. It is claimed that the labor turnover in the Leighton food industry is 40 per cent below others in the same line. While some of their industries have been highly successful, others have not. For example, a printing shop which was operated until 1927 did not average adequate dividends and was sold, as were also two bakeries in Los Angeles.

While this was recently a promising experiment, it is now largely back on a completely capitalistic base. It is significant of the usual evolution of concerns of this kind that in 1930 the company wrote the writer as follows:

⁹ See article by Paul S. Taylor on The Leighton Co, *Journal of Political Economy*, April, 1928.

"We will say that it is true that most of the stock in this company was formerly owned by the employees. Such, however, is no longer the case." The Department of Sociology of the University of Southern California now reports:

"The Leighton Industries of the Pacific Coast are not coöperative in the same sense that they were formerly. Employees may still purchase stock in the company, but it seems evident from statements made by employees interviewed at Los Angeles that most of them do not do so.

"Several employees were asked as to whether there had been any change noted in recent years. All agreed that there had been a marked change toward the ordinary chain type of industry in which pecuniary gain is the chief motive. One employee when asked the question stated in substance 'There surely has; there was a big change about five years ago,' and when asked if there was much of a labor turnover she replied, 'I should say: they come and go almost every day now.'"

Another plan which approaches coöperation in some small degree is that used by the Philadelphia Rapid Transit Company, known as the Mitten Plan. Originally the management intended to start it with the employees organized in a labor union, but two trade unions were fighting for supremacy. Mr. Mitten required a two-thirds vote in favor of one organization or the other. The amalgamated union was in the neighborhood of 350 votes short of the necessary two-thirds majority and consequently the company started by having a coöperative association of the employees. Under this plan the employees received 50 per cent of the net earnings. In the Dennison Manufacturing Company, Framingham, Massachusetts, the managerial and executive forces receive two-thirds of the net profits and the rest of the wage earners one-third. In the Dutchess Bleachery, the net profits are divided equally between management and employees. The Columbia Conserve Company is probably one of the best examples of producers' coöperation in the United States. The employees now own 51 per cent of the stock of the company. All employees are members of the organization and they control absolutely the entire business and even hire the president. There are preferred shares of stock which are owned by outside investors, but these are limited to a 7 per cent dividend.

It seems probable that there will be a continuation of experimentation in the direction of producers' coöperation in the United States, but that the movement will not make great headway until the consumers' coöperative movement has become larger and more stable.

3. THE CREDIT UNION

The real father of coöperative credits in the United States is Edward A. Filene. He became very much interested in coöperative credit

societies which he had seen in other parts of the world. In 1909 he prevailed upon Pierre Jay, the Bank Commissioner of Massachusetts, to prepare the first bill in the United States making coöperative credit societies possible. This was enacted into law in the same year, and thereupon Mr. Filene organized and helped to finance the Massachusetts Credit Union Association. In 1921 he organized and has since financed alone and directed the Credit Union National Extension Bureau for the purpose of extending credit union legislation and organization nationally.

The article which follows describes the movement. It was written by the Executive Secretary of the Credit Union National Extension Bureau, Mr. Roy F. Bergengren.

What Is a Credit Union?

A credit union is a coöperative credit society, organized and operating under the provisions of a state credit union law and generally under the supervision of the State Department of Banking. Each credit union is limited to a specific group of people and is managed by officers (directors, a credit committee and a supervisory committee) chosen by and from the members, each member having one vote and only one vote in credit union meetings, regardless of the total of his share holdings. Each credit union serves its membership in three ways: (1) it supplies them with an easy and convenient method for saving money; (2) it enables them thereby to solve their own short term credit problems at legitimate rates of interest; and (3) being self-managed, it supplies them with valuable education in matters pertaining to the most effective management of their own savings for their own maximum advantage.

Where Did the Credit Union Come From?

Coöperative association has always been bred of necessity; the powerful coöperative movement in England originated within a group of Rochdale weavers, driven to coöperation by their common necessity. The credit difficulties of small farmers in Germany in the middle of the nineteenth century produced the early coöperative societies organized by Raiffeisen; similar credit difficulties among German wage workers in cities resulted, at about the same time, in the early experimentation with urban coöperative credit societies carried on by Schulze-Delitzsch. In 1885, Alphonse Desjardins, then a young journalist in Montreal, inspired by the terrible exactions in usurious interest practised by private money lenders in that city, began his preliminary studies of the German societies. In 1900 he organized his first coöperative credit society at Levis in the Province of Quebec, choosing as a designation for this type of coöperative banking the French words "La

Caisse Populaire." In 1908 Edward A. Filene of Boston, then traveling in Germany, came in contact with the Raiffeisen and Schulze-Delitzsch banks. In 1909 a bill was prepared to make credit societies of this sort possible in Massachusetts. In the preparation of this draft Alphonse Desjardins cooperated and for the first time the words "credit union" were used to describe this type of cooperative credit society.

The credit union is, therefore, the coöperative credit society as devised by Raiffeisen and Schulze-Delitzsch, modified and adapted to American conditions, first in the Province of Quebec by Desjardins and finally by Filene and Jay (in cooperation with Desjardins) in Massachusetts.

Prior to the enactment of the Massachusetts law in 1909, a Special Act had been passed by the New Hampshire legislature authorizing the organization of La Caisse Populaire Ste. Marie within the French Catholic Parish of that name in Manchester, New Hampshire. This credit union (organized by Desjardins) was the first organized in the United States.

Subsequent Development in the United States

In order to give publicity and effectiveness to the Massachusetts law (which contained no provisions relative to propaganda) Mr. Filene joined several other public spirited citizens of the State in the Massachusetts Credit Union Association. This organization, supported as a disinterested public service by voluntary contributions, carried on the Massachusetts development until the organization of the Massachusetts Credit Union League in 1920. The League is a voluntary association of the Massachusetts credit unions, is self-sustaining and directs the credit union development in Massachusetts. Impressed by the demonstrated value of the credit union Mr. Filene, in 1921, organized the Credit Union National Extension Bureau which he has since directed and financed. The objectives of the Bureau are four-fold: (1) to further the enactment of credit union laws; (2) to organize the initial credit unions in a State after a law has been enacted; (3) thereafter to assist the state development of credit unions until there are fifty credit unions in the State and to then organize them as a State Credit Union League; (4) to organize the National Association of State Credit Union Leagues as soon as there are fifteen states with leagues. This National Association will eventually be self-sustaining as will each league. After the organization of the National Association it will direct the national credit union development.

Progress with the Program

There are now 32 credit union laws, 27 of which originated in the Bureau. The following states have adequate credit union legislation: Massachusetts, New Hampshire, New York, Rhode Island, New Jersey,

Maryland, West Virginia, Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Tennessee, Kentucky, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Texas, Nebraska, Montana, Arizona, Utah, Oregon and California. Eight of these laws have been added in a single year by the enactment of new laws in Montana, Arizona, Maryland, Kansas, and Florida and by the perfection by amendment of previously imperfect (and unworkable laws) in Texas, Oregon and Utah. The matter of promoting adequate legislation has necessarily come first.

There are now the following states with enough credit unions each for league organization: Massachusetts, New York, Illinois, Minnesota, North Carolina, Georgia and Alabama (7); the following: Missouri, Iowa, and Virginia now approach the fifty total. The program calls for 15 states with 50 credit unions per state by the early spring of 1930; the National Association should be organized in the fall or winter of 1931. There are 52,000 credit unions in Germany; there should be eventually (and within five years) 100,000 cooperative credit societies in the United States.

Management and Form of Organization

As has been indicated each credit union is a cooperative credit society, serving the members of the specific group within which it has been organized

The Boston Post Office Employees Credit Union, for example, is limited to United States government employees of the Boston Postal District. This is a large district and the credit union has more than 3,000 members; the Paducah Postal Employees Credit Union (another of the 203 credit unions of postal employees) is limited to the fifty employees of the Paducah, Kentucky, Post Office. The group limitation varies; there are, for example, credit unions limited to the membership of a labor union, a fraternal society, an American Legion Post, small community or well defined rural district, church parish—as well as credit unions of the employees of a given factory, mill, store, public service corporation, railroad, employees of a city, county or State, etc.

To become a member of a credit union, therefore, I must first be a member of the group eligible to membership. I must then subscribe for one or more shares, paying for them in cash or (in the average credit union) at the rate of twenty-five cents per week per share. If, for example, I feel that I can save fifty cents a pay day, I subscribe to two shares and pay in twenty-five cents on each share, if a dollar a pay day or whatever the installment period of the credit union is (weekly in 95 per cent of all credit unions) I subscribe to four shares, if two dollars to eight shares, etc. The purpose is to induce every one eligible to membership to begin saving weekly as much as the individual in question can

save—to make it easy and convenient for that person to save and to induce that person to become an habitual saver. It is anticipated (and generally so happens) that the member, by the time his first share or shares are paid for, will forget that he was paying for a certain number of shares and that he will go right on saving indefinitely. In the Massachusetts credit union law, for example, no person can have more than \$4,000 in a credit union. Many of the members of the Telephone Workers Credit Union of Boston (one of eight credit unions to which 15,000 employees of the New England Telephone & Telegraph Company belong) have now reached the \$4,000 limit.

In a credit union a member may also have an irregular deposit or “come and go” account. The shares are entitled to an annual dividend and interest at a somewhat lower rate is paid on deposits and figured monthly.

A credit union is, therefore, first a thrift agency—a pool for the savings of the members of the group so operating as to make habitual savers of the members.

The coöperative character of the undertaking is indicated by the plan of management. In a credit union each member (that is each person who has one or more five dollar shares to his credit) has one vote and only one vote whatever his shareholding; there is no proxy voting. *A credit union is an organization of members—not an organization of shares.* The management vests in a Board of Directors, a Credit Committee and a Supervisory Committee, in most state laws all chosen by and from the members. In Massachusetts and one or two other States a large board of directors is provided and the Committees are chosen by and from the board. The credit committee has full charge of all matters pertaining to loans; the supervisory committee is the auditing committee. The directors choose, by and from their own number, the president, treasurer, vice-president and clerk. The treasurer is the manager and is bonded. *The success of a credit union hinges largely on the selection of the right person to be treasurer and the choice of a credit committee capable of assuring the right sort of credit service and at the same time safeguarding the funds of the credit union from unwise loans.*

The credit union accounting system is very simple and bookkeeping or banking experience is not essential or primarily important when a credit union treasurer is to be chosen. The treasurer must be thoroughly convinced of the value of the credit union and he must find in the credit union plan of operation and in the service the credit union is geared to render something which responds to his own inclination. He must, above all else, “like it.” A recent letter from a midwestern state comments on the fact that the Bank Commissioner of that State has recently commended the accounts of a credit union treasurer as the “best set of books as yet examined.” The treasurer (who is also the bookkeeper)

of this particular credit union is the foreman of the belt room in a factory where belts are made and prior to the organization of his credit union had never kept books of any sort.

Credit unions operate under State supervision. Reports are made annually to the state supervisory department indicated in the law (generally the State Department of Banking) and each credit union is annually examined by that Department and may be closed for cause. Credit unions have an exceptionally fine record for honest and efficient management with practically no involuntary liquidations or defalcations.

Credit union accumulations are used primarily to take care of the short term credit problems of the members. Loans may be made only to members and the terms are governed in each case by the credit committee; loan repayments are pro-rated, on a weekly basis, over a period which never exceeds a year and most credit union loans business is concerned with personal loans varying from ten dollars to five hundred dollars. Interest rates are fixed by the individual credit union but must not exceed one per cent a month on balances (without paper or investigation charges or any other fees which increase the cost of the loan to the borrower). All net earnings (over and above 20 per cent set aside annually to an indivisible reserve fund or surplus which belongs to the credit union as a whole and may be divided only on liquidation) revert to the members as dividends on their savings. *In this connection it must be remembered that a borrower must first be a member* and that the inclination is for him to have increasing savings to his credit. It is therefore difficult to determine just what rate the borrower pays as he is always getting part of it back as dividends on his savings. According to the Massachusetts Bank Commissioner's Report for 1928 the average interest rate paid on personal loans in credit unions in the State for the year was 7.02 per cent. The average dividend rate was 6.8 per cent. It should be borne in mind that the small loans laws of 26 states (the so called "Uniform Small Loans Law") permit the private money lender to charge from 36 per cent to 42 per cent (the latter rate being legal in 17 of the States) and that the theory behind this law is that 42 per cent is the lowest rate at which the private lender will operate who will submit himself to regulation; and that the other alternative in the private small loans field is the unlicensed lender operating at rates so high as to make 42 per cent seem low by comparison; and that usury investigations in many of the larger American cities in recent years have disclosed rates ranging from 42 per cent to one extreme case (in Chicago) which figured a bit more than 3000 per cent.

These Massachusetts figures (which are typical of credit union operation in the 32 states with laws) indicate that in the United States the worker can solve his own short term credit problems at proper rates of interest by coöperating with his fellow workers in credit unions. We have

yet to demonstrate that the rural credit union will work as well for the small farmer in the United States as it has abroad, although our first few rural experiments seem to indicate that there may be also a broad field of service for the credit union applied to rural conditions.

Credit union loans divide into two general classifications: (1) remedial loans—the sort of loans required by the many emergencies which come into the lives of all people—unexpected funerals to pay for, sickness, operations, hospital bills, loan shark activities, etc., and (2) constructive loans or loans designed to help the borrower improve his lot—for education, to repair his house, to help him enter a small business or to make an investment, to assist him to gain the advantages incidental to collective buying, etc. It seems to be a fact that about one-half of the members have occasion to borrow from time to time, the Massachusetts 1928 figures showing 98,402 members, of whom 47,308 were also borrowers.

Because credit unions are self-administered they have great educational value. Eventually credit unions will have much more money than needed for their personal small loans problems. Already they are making second mortgages, the credit union affording the member a convenient way for saving enough money to constitute a substantial equity in a home and then arranging for his first mortgage (with a savings bank or building and loan association) and then taking the second mortgage where necessary, without any bonus and at a fair rate of interest, thereby solving another problem which so often required the man of small resources who is buying a home to pay a usurious bonus for his second mortgage. Eventually credit unions will also supply their members with investment service or broaden out their collective buying service in order to keep all funds gainfully employed for the benefit of the members.

In this connection it will be remembered that a credit union is a coöperative society which has to do solely with its own members, accumulating funds of the members under the management of the members and used solely for the members.

It is not inconceivable that the time may come when the credit union member will come to his credit union each week for the following purposes:

- (1) To deposit his savings.
- (2) To obtain, when necessary, credit at fair rates for both remedial and constructive purposes, including help to purchase a home.
- (3) To participate in collective purchasing of necessities of life which he may be able to acquire at a money saving by pooling his buying power with that of his fellow members.
- (4) To make regular installment investment of savings in an investment trust owned and operated by the credit unions for the service of credit union members.
- (5) To participate in some form of insurance made possible by his membership in the group constituting the credit union.

In the process he will participate in the management and develop in his capacity to attain the maximum benefits possible from his earnings and to develop himself economically.

Statistical Progress

There are no reliable credit union statistics available because the credit union laws are of such recent origin. We know, for example, that there are two hundred credit unions of postal employes stretching from Boston to New Orleans to Seattle to San Francisco; that they already have over 35,000 members, savings of \$2,000,000, with a total loans service to December 31st, 1928 of 57,040 loans aggregating \$6,320,000. We know that the most recent Massachusetts report (as of the same date) lists 296 credit unions with assets of \$15,137,872, and 98,402 members. Of the 32 states with credit union laws, 8 laws have been enacted within eight months so that the first credit unions are just now being organized. There are, as already noted, 7 states with more than 50 each and 3 other states nearly at that total. There are between 900 and 1000 credit unions in the United States with approximately 250,000 members and assets of approximately \$35,000,000. *The development to date is a small, preliminary development which should lead eventually to a broad use of cooperative credit societies by the people of the United States.*

4. THE WORLD SWEEP OF THE MOVEMENT

In the brief span of eighty years the Cooperative Movement has spread throughout the world. It has achieved a position of outstanding importance among the various economic distributive mechanisms. In short, the progress which it has made is almost incredible and yet it has been relatively unnoticed. This is because it does not violently attack existing institutions nor disturb the conventional *mores* of our society. It works slowly alongside of and with capitalistic institutions. Let us review the situation at the present time, as far as coöperation is concerned, in some of the principal countries of the world.

The Consumers' Coöperative Movement in Belgium started about 1880, and has worked in close coöperation with the Trade Union Movement. Usually, the headquarters of the Trade Union also has its coöperative store. The Belgian movement was unique in that instead of returning a cash compensation to members in proportion to patronage, it at first used this surplus rather to provide life insurance, accident, unemployment, and maternity insurance, as well as old-age pensions and medical help. To-day, while continuing these benefits, it also returns some rebate—either in cash or in the right to purchase additional supplies at the coöperatives.

There are to-day over three hundred and fifty Consumers' Societies in Belgium with over 500,000 members. The turnover of the Belgian Coöperative Movement in 1927 was over 211,000,000 francs. The Cooperative Insurance Society carries over 200,000 policies.

In Germany, curiously enough, the first form of coöperative was the Credit Union, organized about 1850. To-day there are over 20,000 cooperative banking societies and more than 4,000 housing societies. Consumers' Cooperatives have also had a very rapid growth since 1890 and they now embrace over 5,000,000 members united with 50,000 societies. Just one society in Hamburg has over 100,000 members, 275 stores, several factories, blocks of houses, banks, and its own farms. The German Cooperative Movement is noted for its efficiency and the expert technical help which it has secured.

Denmark leads the world in the percentage of coöperators to the total population. Since Denmark is an agricultural country, various types of agricultural coöperatives predominate, including farmers' marketing and supplying societies. Denmark also has its central coöperative bank, with which are affiliated savings banks, credit unions, and individual members. The Danish Wholesale Society has its own factories and mills for the production of hosiery, clothing, cigars and tobacco, boots and shoes, chocolate, coffee, spice, candy, mustard, margarine, chemicals, rope, bicycles, and for the tanning of leather. Nearly all of the adult population of Denmark are served in some way or other by the Coöperative Movement.

In Austria, approximately one-third of the population belong to the Coöperative Societies. The average turnover per member for all the societies in 1927 was 534 shillings. The Vienna Coöperative Society has about 170,000 members, over 150 stores, and supplies more than one-half the families of the city.

In France the movement was handicapped at first because of the opposition of the Socialists but just prior to the War they ceased their opposition. To-day there are over 4,000 distributive societies, with 2,500,000 members. The Paris society alone has over 300 stores. Many of the local societies in France have united into regional societies. In fact, such societies in 1927 were operating over 28,000 branches, with a total turnover of 965,700,000 francs. The French Coöperative Bank had a turnover in 1927 of 13,373,000,000 francs.

In Italy, prior to the Fascists' control there were 4,000 Consumers' Societies alone, with over half a million members. There were also agricultural societies. The Fascists, however, opposed the movement early in their régime and many stores were burned or destroyed and some of the

coöperators were even killed. Most of what remains of the Coöperative Movement in Italy has been taken over by supporters of the Fascist régime. Nevertheless in 1929 there were reported to be 3,333 Consumers' Societies, 499 housing societies, 57 electricity undertakings, 1,283 industrial production and labor coöperative societies, 1,276 cooperative dairies, 458 coöperative credit societies, and 615 agrarian associations.¹⁰

Russia has the largest Cooperative Movement in the world. The Communists at first attempted to confiscate the coöperatives and turn them into government stores but later decided to permit them to function independently. The Communist Party attempts to influence—if not to dominate—the Coöperative Movement, so that it is somewhat handicapped by political influences. On the other hand, the Russian Government has promoted extension of credit to agricultural societies and promotes the work as perhaps no other government has done. There are now coöperative stores throughout Russia with a membership of over 23,000,000. The Centrosoyus or all-Russian Central Union is the largest coöperative union in the world. It maintains permanent offices in London, New York, and many other capitals of the world and sells direct to the English Coöperatives besides shipping to nearly every other important country in the world. Nearly every form of cooperation is to be found in Russia to-day, from banking to coöperative unions of artisans. The yearly turnover of the consumers' coöperative societies in Russia is \$14,553,000,000. The coöperatives do an enormous educational work. In 1928 alone the coöperatives opened 65,000 bookstores, 700 portable moving picture places, and 80 permanent moving picture theaters. Over \$4,000,000 was spent for coöperative literature and about \$4,500,000 for welfare work among women and children. The coöperatives are establishing a Coöperative Institute for training employees and specialists. All the students accepted (900) will have scholarships: \$50 a month to single men and women, and \$75 to married students. Throughout Russia the Consumers' Cooperative employs 425,000 workers. In 1925, 50,000 of them attended a special two weeks' course of instruction.

Perhaps the most interesting example of coöperation, from the American point of view, is to be found in Great Britain. As far back as 1863 the English coöperatives formed a wholesale society. To-day it is the largest organization for the distribution of food, clothing, and household necessities in Great Britain. At first it was boycotted by many of the manufacturers. It promptly met this opposition by starting factories of its own. It has extended this productive feature until it now has 116 factories,

¹⁰ *Efficienze del movimento cooperativo italiano aderente all'Ente nazionale delle Cooperazione, Rome, 1929.*

including, among others, butter, cheese and bacon, coffee roasting, chocolate, cracker, candy, soap, flour mills, tobacco, oil, lard, pickle, margarine, woolen and cotton clothing, shoes, canneries, furniture, automobile, bicycle, cutlery, china, paint, drugs, not to mention two coal mines and five printing establishments. Great Britain now has about 6,000,000 members in more than 1,400 societies, which distribute each year a billion dollars worth of goods. In 1927 they earned a net profit of \$135,000,000. The Coöperative Wholesale Society of England alone paid a rebate to member societies of \$2,500,000—or, roughly, an average of \$2,080 per society. Its banking division had in 1928 total deposits and withdrawals of \$3,500,000,000. The wages of employees in the cooperatives alone amount to over \$150,000,000. The English societies have in Ceylon and India large tea estates of 7,721 acres which produce about 4,000,000 pounds annually. They have 10,000 acres of wheat land in Canada and olive estates in Africa. They own their own fishing fleet and their own steamships. Naturally, they have the largest flour mills in England. The Coöperative Movement also has its own banks—and any member can borrow money to build his home, for instance. It also has its own fire and life insurance as well as accident, employer's liability, burglary, and in fact nearly every other form of insurance. They have also developed collective insurance plans so that all the members of a cooperative society are insured jointly without examination. In case of death, insurance is paid to the wife or husband on the basis of the average purchases made by the member three years prior to that time.

When we turn from particular countries to the general movement the picture is still more impressive. In Europe to-day 150,000,000 people are either wholly or partially fed and clothed through consumers' cooperatives. The European wholesales sell each year over a billion and a half of goods; and this does not include the agricultural credit societies, whose business is equally large. In the past twenty years the Cooperative Movement has increased ten times over. In Australia and New Zealand the increase has been equally large. Even South Africa has begun to develop coöperative credit societies.

The thirteenth congress of the International Coöperative Alliance meeting in Vienna, Aug. 25, 1930, included 100 national unions of cooperatives in 40 countries with a total membership of 55,000,000 people. During 1928 this alliance collected over \$15,000 for suffering coöperators in Bulgaria and appropriated \$2,500 for educational work in Canada. During the summer of the same year a coöperative summer school was held in Hamburg, Germany.

The United States, because of a variety of reasons which we will set

forth later, has not kept pace with European countries in the development of the cooperative. In spite of this fact, the extent of the movement has been impressive.

It should also be recognized that the Coöperative Movement in almost every instance is solidly behind the progressive forces in each country. As would be expected, the coöperative is friendly to the labor unions and to every movement which stands for more justice, liberty, and happiness for the working masses. The English *Year Book*,¹¹ for instance, has an article devoted to the dangers of capitalistic control of the press and urges the trade unions, the cooperatives, and the Labor Party to enlarge their press activities. It also devotes an entire chapter to "Trade Unionism and the World of Labor." In view of the wide development and general success of the cooperatives throughout the world, it has to be admitted by friends and critics alike that the Coöperative Movement must be responding to a genuine human need. Indications seem to point to its continued development.

V. SIGNIFICANCE FOR THE UNITED STATES

I. OBSTACLES TO EFFECTIVE COÖPERATION IN AMERICA

Any new movement coming from abroad has to adjust itself to American culture. But our education, customs, laws, habits, traditions, and *mores* are to large extent unfavorable to coöperation. To make a coöperative grow in our capitalistic environment is not easy. Among the difficulties which the Coöperative Movement has had to face in the United States are the following:

1. Geographical isolation. In a small country, such as Denmark, it is relatively easy for one coöperative to secure assistance or support from others, even if they are at the opposite ends of the country. In the United States a coöperative society—in New York State, for instance—may be isolated from another even within the same state. The situation is even worse when we consider coöperative societies in different states.

2. The capitalistic, materialistic spirit—which is dominant in America—is sympathetic with the efficient and egotistic individual, who seeks to dominate coöperative affairs for his own selfish profit.

3. The people of the United States as a whole have been infected with the profit motivation: they want to make money quickly and easily in capitalist enterprises. There is fear on the part of many business men that a coöperative society successful in one line may eventually encroach upon

¹¹ *The People's Year Book*; see bibliography at end of this section.

their own profits. The result is unrelenting opposition from the private retailer and wholesaler.

4. The laws of the United States discriminate against business carried on for service and on the whole favor business carried on for profit. Governments usually discourage coöperation if the business interests of the community are opposed to it.

5. The competition of the great chain stores is severe. Such retail chains as the Atlantic and Pacific, Butler's, and others, together with the low prices of mail-order houses, such as Montgomery-Ward and Sears, Roebuck, make competition by a coöperative difficult.

6. Americans are used to large scale business and in the nature of the case a coöperative must start on a small scale. Thus it compares unfavorably with the national chain stores, even if its prices are low.

7. The American people do not practise thrift. On the whole, they are not concerned with the saving of small amounts and are little interested in the coöperative movement. Even within a cooperative society the rank and file are largely indifferent to it.

8. Cooperation suffers from the fact that it is democratic. It is easier to support a dictatorship than it is a democratically organized store. Even intellectuals and laborers who urge cooperative enterprises are often unwilling to take the trouble to trade at the coöperative even when it exists. There is no disposition on the part of the American people to sacrifice their own convenience for a single saving. They prefer to pay higher prices and not bother with the troublesome details of democratic management.

9. The conglomeration of different nationalities in America makes it more difficult for the poor people to join in coöperative societies. It is the poorest economically who are more apt to live in an area inhabited by many nationalities. This naturally weakens their ability to work together effectively.

10. Organizers are often incompetent. Many leaders of the Coöperative Movement do not understand its fundamental principles, neither are they efficient; and consequently the coöperative society often ends in financial disaster. The highly efficient executive is tempted to yield to the allurements of high financial return and accept positions in a capitalistic enterprise.

11. The fundamental principles of coöperative stores selling at the market prices—one man, one vote, etc.—are apt to be violated. The result is that there is a high rate of failure or discouragement. A coöperative may start with hardly any capital, no real membership backing, and be run

by a capitalistic store-keeper who believes the chief purpose of the coöperative name is for advertising purposes. Even when the principles are known the management tends to ignore the necessity of effective and continuous educational work among his patrons as to the purpose and methods of co-operation.

12. Because of the ignorance of the American people as to just what a cooperative is, many questionable concerns are able to do business under the cooperative banner. The exploitation practised by these concerns or their economic failure tends to throw discredit on the genuine coöperatives.

13. American labor is mobile. The turnover in the factory is high. There is migration from one state to the other. This makes it very difficult for the cooperative stores, since they continually have to educate a new constituency.

14. The coöperatives of the United States do not have their own social welfare societies. Our workers have failed to develop a workers' culture such as exists in Europe. Thus most of our best coöperators are immigrants from Europe.

15. The religious forces of the country do not support the coöperative movement.

16. The coöperative movement fails to appeal to the neediest classes in the United States and to those who are near the poverty line. These are precisely the classes who would benefit by it most and yet they find the most difficulty in organizing societies.

17. Americans have a spirit of individualism, self-help, and "mind your own business" which militates against effective coöperation.

18. There are serious mistakes in financial policy. Dr. Warbasse cites the following difficulties which often bring disaster:

- a. Starting with too little capital
- b. Allowing its withdrawal
- c. Giving credit
- d. Buying on credit
- e. Bad bookkeeping methods
- f. Failure to have accounts audited
- g. Declaring a saving dividend to the members too soon
- h. Underselling the private stores
- i. Failure to develop coöperative banking

2. A CONCRETE EXAMPLE OF OPPOSITION TO A COÖPERATIVE

In September, 1919, there was a dispute between the milk dealers of Minneapolis and their employees over the right to unionize. The creamery workers wished to belong to the Milk Wagon Drivers' and Creamery

Vorkers' Union. A strike broke out in one of the plants on this issue, following which the dealers locked out the employees in all the other plants. The public was told that the resultant suffering was all the fault of the employees.

The Union appointed a committee of five to look into the question of acquiring a creamery owned and controlled by the milkmen themselves. The committee began negotiations for the purchase of the plant of the Standard Milk Company, but as soon as the milk dealers heard of it, they purchased the plant themselves.

Finally the strike was settled and the Union recognized. The enthusiasm of the workers for purchasing a creamery fell immediately. However, there were some cooperative enthusiasts in the Union who still wanted the project to go through. They called a meeting on October 2 and those attending decided to incorporate a creamery under the cooperative laws of the state. They planned to make it a consumers' cooperative.

The business agent of the Milk Wagon Drivers' and Creamery Workers' Union promised to sell the stock for the new enterprise. The first annual meeting was held in January, 1920, but there was so little interest that only thirteen people attended and there was only \$911 in the bank. However, an option had been secured on a piece of property for the site of the plant and it was voted to go ahead. The business agent resigned his office and gave full time to selling stock in the cooperative. By September, 1920, \$27,000 worth of stock had been subscribed and construction work was begun.

On December 17, 1920, the milk dealers again tried to break the Union and declared a lockout. This was probably the best possible method they could have used to help the cooperative. For the chief result was enormously to increase the interest in the cooperative plan; within sixty days over \$100,000 had been subscribed and the new plant was formally opened in March. Before this the second annual meeting had been held and instead of an attendance of thirteen the room was jammed to the doors. A complete constitution and by-laws were adopted.

On March 15 eighteen wagons and trucks went out with their first loads of milk. So much business was secured that within three months it was necessary to enlarge the plant to double its original capacity. By October, 1921, so many new orders had come in that it became essential to build a distributing station in another section of the city. Even this proved inadequate and in 1922 it was decided to build a new and enlarged plant.

One of the difficulties which had to be met came with the effort to sell

stock. When application was presented to the State Securities Commission, they were told that they had already violated the law by accepting money from those who had subscribed and were liable to arrest. One of the members of the Committee describing this experience said:

"It was a very serious question with the commission as to whether or not it was good business to comply with our request for a license to sell stock. We had to admit, that in the case of most of us, our business experience consisted mostly in getting up early in the morning to pilot one or two horses, deliver milk, collect the cash and that some of us did not even know how to pasteurize milk and make butter. Our attorneys suggested, however, that we could hire 'big brains' if it was found that we were lacking in this respect."

The license was finally granted. By 1924 the capitalization had increased to \$1,500,000.

Soon after the completion of the new and enlarged coöperative plant, the competitors of the Franklin became much alarmed at the progress of their rivals and several of them merged into what has since been known as the Northland Creamery. They had wealthy men behind them and with this backing expected to put an end once and for all to the encroachments of the workers' coöperative. Their attack was the familiar one of cutting prices. Previous to the inauguration of the coöperative, dairy milk in Minneapolis had been selling for fourteen and fifteen cents a quart. The result of the coming of the coöperative had been to cut the price to ten and eleven cents.

However, the price of milk had been increased from \$2.70 to \$3.10 (about a cent a quart) so it was decided by the dealers to increase the retail price one cent a quart. Suddenly without any warning the Northland, the largest competitor of the Franklin, published large advertisements in all the papers stating that as a result of economies effected in their merger they would not increase the price. Naturally this attack threw the executives of the coöperative into a panic, for they had no large reserve fund with which to wage a price war; in fact there were heavy debts owing on the new building. Even to follow the Northland was out of the question from a business standpoint. The directors had no time for careful consideration of the problem; something must be done at once, or sales would immediately begin to drop. There was not even time for a shareholders' meeting. Therefore the entire force of employees was called to a special meeting that very afternoon, and everyone came from general manager down to the last bottle washer and worker in the engine room, upwards of 200 altogether. The situation was presented in all its most ugly aspects, and suggestions finally began to come from the floor of the hall. It was upon one of these sugges-

tions, made, I believe, by one of the drivers, that the final plan of campaign was based.

The Franklin drivers had suffered repeatedly and keenly at the hands of the very capitalistic concerns who were now waging war against them. Many a time they had gone without work or wages in order to win or lose a strike. They offered to make a similar sacrifice for the sake of the co-operative they had helped to build.

On the following day, therefore, another advertisement appeared, this time inserted in all the papers by the Franklin Coöperative advising the milk consumers of Minneapolis that possibly the Northland might be able to cut prices, but such reductions were due less to increased efficiency of the new company than to the capital resources at its disposal and its desire to stop the progress of the coöperative. The Franklin Coöperative might not have hundreds of thousands of dollars in reserve, in fact it had nothing set aside for such contingencies, but it did have other resources which the competitors had perhaps not counted upon. In any case, if the Northland was to hold its price at eleven cents and make up its financial losses out of a large reserve fund, the Franklin would go them one better and cut the price to ten cents, depending for its support upon its own greater resources to be found in the loyalty and sacrifice of its entire force of employees. These workers had determined by unanimous vote on the previous day to pit their strength against that of the bank account of the capitalist milk company and were prepared to work without wages until this battle was won.

Needless to say, the entire city sat up and rubbed its eyes. Here was warfare between two large distributing companies where, contrary to custom, at least one of the combatants trumpeted its plan of campaign to the public, relied upon the public to recognize and appreciate frankness and honesty. The plan was financially sound, for without the huge wage expense, milk could be delivered at the price quoted.

The fight was over in three days. The competitors might have great financial resources, but they were unable to command from their employees the sacrifice of their wages, particularly since these employees were now members of the very union to which the Franklin employees belonged (and which the Franklin Coöperative had finally placed upon a solid and permanent foundation). And the big corporation had had enough experience with these milk wagon drivers to know that they would continue these tactics for weeks, even months. The loss of money was too great; and ambassadors of peace were sent around to the coöperative with the result that an armistice was declared and both concerns went back to the old price.

However, the story did not end there. The widespread publicity that accompanied this fight not only educated thousands to the peculiar merits of the cooperative, but it induced them to place their milk business with the Franklin Creamery Association. New orders came into the offices at such an alarming rate that the office force was unable to handle them; new wagons for additional routes were not to be had fast enough. The new North Plant which only a few days before had been operating at less than half of its capacity and actually at a deficit, suddenly found itself almost as busy as the old South Plant. That one price war had resulted in an increase of several score employees in the Coöperative Association, an increase of at least a score of new milk routes, a great leap in the sales of dairy products, and the definite establishment of the workers' coöperative as a power in the city. From that day forward the growth of the coöperative business continued, until even as far back as 1926 the Franklin Coöperative Creamery Association was not only larger than this particular competitor, but larger than all its competitors combined. The permanence of the milk wagon drivers' union was assured; and an educational campaign of tremendous value to the coöperative had been inaugurated.

The Franklin Coöperative Creamery does not return cash dividends to patrons. Instead it tries to keep the price of milk as low as possible and return benefits in the form of medical service and educational work. This policy results in giving milk to the people of Minneapolis and St. Paul at the lowest possible price, and since milk is a basic necessity for the children of the poor this policy may be the soundest one from the standpoint of the public good.

3. COÖPERATION IN THE UNITED STATES

In spite of the obstacles the Coöperative Movement has progressed in the United States with remarkable results. We have now about 1,700 coöperative stores; 95 per cent. of them in the North. The three largest are probably The Coöperative Trading Company of Waukegan, Ill.; Soo Coöperative Mercantile Association of Michigan and the Cloquet Coöperative Society of Cloquet, Minn. In 1928 these societies had sales of \$680,000, \$620,000 and \$545,300, respectively.

Coöperative bakeries are organized mainly among the Jewish and Finnish nationalities. A list of the more important organizations are given so that the reader can visit one if he desires.

COÖPERATIVE BAKERIES IN THE UNITED STATES

Hebrew Coöperative Bakery, Brockton, Mass.

Hebrew Coöperative Bakery, Lawrence, Mass.

Workingmen's Coöperative Bakery, Lynn, Mass.
 Jewish Workers' Cooperative Bakery, Springfield, Mass.
 Labor League Coöperative Bakery, Worcester, Mass.
 United Cooperative Society, Fitchburg, Mass.
 United Cooperative Society, Maynard, Mass.
 Workers' Cooperative Union, Lawrence, Mass.
 Coöperative Bakeries of Brownsville & East New York, N. Y.
 Purity Cooperation Society, Paterson, N. J.
 Finnish Cooperative Trading Association, Brooklyn, N. Y.
 Consumers' Coöperative Services, New York City.
 Purity Cooperative Bakery, Syracuse, N. Y.
 Utica Cooperative Society, Utica, N. Y.
 Woodbridge Farmers' Coöperative Bakery, Woodbridge, N. Y.
 Soo Cooperative Mercantile Association, Sault Ste. Marie, Mich.
 Coöperative Central Exchange, Superior, Wis.
 Cooperative Consumers' League, Los Angeles, Calif
 Coöperative Trading Association, Brooklyn, N. Y.
 Milwaukee Consumers' Coöperative, Milwaukee, Wis.

There are some twenty-six coöperative restaurant and boarding houses in the United States, of which the most important is the Consumers' Co-operative Services of New York City, which has a membership of over 3,000 and an income in 1928 of \$610,000.

There are nine coöperative milk distributing concerns of which the largest is the Franklin Cooperative Creamery Association of Minneapolis, Minn., whose history we have just recounted. It deals exclusively with the Twin Cities Milk Producers' Association, an organization of farmers, and pays them top prices. Milk in Minneapolis now sells for far less than in most of the other cities in the United States and it is claimed that its quality is higher. In 1928 this creamery sold \$3,410,396.74 of its products and its net earnings were \$95,521.30. It has 40,000 patrons and 165 milk routes. It is now installing electric trucks for delivery. Its 415 employees all belong to some form of trade union. In 1925 it took out \$500 insurance for every employee and raises this amount \$100 for every year of service up to a maximum of \$1,500. It has a band of 33 members, a chorus of 32 and its baseball team has for the past three years won the amateur championship of Minneapolis. It also has an educational department and maintains a health clinic for free examination and advice of the children of school age whose families are members or customers of the creamery.

There are a few independent butcher shops organized on a cooperative basis although most coöperative stores sell meat in one department. Coal is distributed coöperatively among scores of farmers' societies, as is also gas and oil. In Nebraska there are sixty such societies and in Minnesota sixty-one.

Coöperative housing in the United States is confined pretty largely to New York City. The largest is that of the United Workers Cooperative Association with two entire blocks of houses accommodating over 700 families. The next largest is that of the Amalgamated Clothing Workers, which provides quarters for 303 families.

There are several thousand mutual or coöperative insurance companies for the protection of live stocks, buildings, crops, etc., among the farmers. The New Era Life Association of Grand Rapids, Michigan, has a membership of 30,000 policyholders. There are also some coöperative banks and some 900 credit unions, described elsewhere in this volume.

In addition one can find many other types of cooperatives scattered throughout the United States from telephone companies to book stores. There are five cooperative wholesale societies which handle chiefly the consumers coöperative store work. These are: Central States Cooperative League which maintains a joint buying department for a few of its stores; Eastern Cooperative Wholesale, New York City; Grange Coöperative Wholesale, Seattle, Washington; Coöperative Central Exchange, Superior, Wis; and the Nebraska Farmers Union State Exchange, Omaha, Nebraska.

In addition to these there are various farmers coöperating marketing societies which do a business to the extent of approximately \$2,500,000,000 a year through 12,000 societies.¹²

The United States also has a national federation of consumers' coöperatives in The Coöperative League of America. In 1928 this had a membership of 155 societies representing 78,000 individuals and annual sales of over \$14,000,000. The League is the American representative of the International Coöperative Alliance which unites many societies throughout the world. The main purpose of the Coöperative League is to spread a knowledge of the coöperative movement. It publishes two monthly periodicals, a monthly technical bulletin to affiliated societies and a news service to the farmer and labor press. It also sends out speakers to forums and technical advisers to assist coöperative groups with the problems of organization and administration.

Besides the national organization there are three district coöperative leagues: The Northern States Cooperative League with a membership of 96 societies; The Eastern States League with a membership of 29 societies

¹² The Federal Farm Board divides these in 1930 as follows:

Cotton and cotton products, 199 associations; dairy products, 2,458 associations; forage crops, 11 associations; fruits and vegetables, 1,384 associations; grain, 3,488 associations; live stock, 2,153 associations; nuts, 44 associations; poultry and poultry products, 157 associations; tobacco, 15 associations; wool, 131 associations; miscellaneous selling, 546 associations; and miscellaneous purchasing, 1,454 associations

and 14,000 members and the Central States Cooperative League which was only organized late in 1926 and has 16 societies

It is apparent from the above account that the movement in the United States is by no means negligible. It is apparently growing from year to year in spite of the many obstacles.

4. CONCLUSION

It seems clear from the evidence already cited that the coöperative movement meets a definite need of mankind in its reaction to economic environmental forces. Coöperation is here to stay for a long time. To just what extent it may yet develop and whether it will take over larger and larger areas of economic activity is not certain. It is surely not co-extensive with life. The claim that all we shall finally need is a series of coöperatives for every branch and endeavor of mankind is naturally absurd. The individual needs freedom to live his life in contact with his fellows in accordance with his conscience, his capabilities and his aspirations. It seems exceedingly doubtful if, as some enthusiastic cooperative champions would have us believe, cooperation will finally do away with the necessity of a separate political structure. One serious potential weakness in cooperation is that it may not sufficiently harmonize the place and power of the producers with that of the consumers, although in practice it has done this very much better than capitalistic enterprise.

We have seen how profit-motivated industry vigorously opposes a co-operative which threatens to reduce its profits. The financial solidarity of selfish profit-making industry which leaps over international boundaries is nowhere better illustrated than in the fight capitalism has waged in the past against the encroachments of coöperative effort. Let us cite one concrete example. Sir Wilfred Grenfell, who has given his life to serve the people of Labrador, found that the fishermen were often in perpetual bondage to the small traders, who paid them too little for their fish and charged them too much for their supplies. To change the situation he started co-operative stores which emancipated the fishermen by paying them the full price for fish and by charging wholesale prices for food. The result was that Dr. Grenfell won the undying hostility of the small trader who protested vigorously to the wholesale stores in St. Johns, Newfoundland. The wholesale stores wrote to Canada protesting to the larger business firms, who in turn, succeeded in bringing enough pressure to bear on the directors of the International Grenfell Association in the United States, so that they voted to ask Dr. Grenfell to stop organizing cooperative stores. It is

needless to say that Dr. Grenfell refused this request, but it typifies the solidarity of economic interest of those who serve profits.

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BOOK VII
THE BRITISH LABOR MOVEMENT

QUESTIONS ON THE BRITISH LABOR MOVEMENT

1. Outline the main events of greatest importance in the history of the British Labor Party.
2. How far do you feel their success may be due to the Workers' Education Movement? Why do not more colleges in America actively support such a movement?
3. Summarize the proposals of the British Labor Party. How far is this program valid? What differences do you detect in the later program?
4. Outline the organization of the British Trade Unions.
5. Do you feel labor was wise in the handling of the Great Strike? If so, why? If not, what should they have done?
6. In what way is the position of labor in respect to the law different in England from the United States? Which is nearer right and why?
7. Should we or should we not have unemployment insurance? Why? Old age pensions? Health Insurance?
8. What has been the stand of the American Federation of Labor toward a labor party for the United States?
9. Do you feel America needs a labor party? Why or why not? Do you feel the same way about a British labor party?
10. To what extent has British labor been more or less successful than American labor? Why?
11. In your opinion, what are the real reasons why British labor has been able to organize into unions universally accepted by the employers of England, and the American workers in general have not?

I. THE RISE OF THE BRITISH LABOR MOVEMENT¹

I. THE ANTECEDENTS OF THE LABOR MOVEMENT, 1815-1914

TO AN Englishman, accustomed for several generations to think of the two great traditional parties as partaking of the permanence, if not of the luminosity, of the solar system, it is natural that the emergence to prominence of a new political organization, polling some 4,300,000 votes at the last election, returning approximately one-third of the House of Commons, and achieving, after a generation of comparative obscurity, the feat of forming His Majesty's Government within little more than twelve months of being recognized as His Majesty's opposition, should appear a phenomenon of considerable, if somewhat apprehensive, interest. And when this Government, which the more romantic section of the press had taught him to regard as the herald of disaster and decay, is seen to be followed by no swift relapse into anarchy, but to be not in compatible with the stability of established institutions, and even with a modest revival of trade, to conduct administration in a manner approved by those most experienced and exacting, if sympathetic and helpful, of critics, the British Civil Service, and to secure, it is perhaps not unfair to say, the increasing confidence of the professional and business classes, without losing that of the manual workers, if his apprehensions are diminished, his curiosity is increased. . . .

I wish to describe shortly, if you will allow me, the historical evolution through which it has passed and its present organization and constitution. The formation of a Labor Party acting independently of other parties dates only from 1900, when it was known as the Labor Representation Committee; the present name dates only from 1906; the present constitution from 1918. But the Labor Party is merely the political wing of a much more complex social and economic movement. It derives its significance from the fact that it is not simply an improvised arrangement designed to meet the immediate exigencies of parliamentary warfare, but that it is the expression of forces which have their roots deep in English society. Organized now in such a way as to unite all who share its political creed, whatever their economic affiliations, and thus admitting numerous members of the professional and business classes, its social background is the spontaneous drawing together of the working classes in the trade union and coöperative movements, the former now

¹ Reprinted from R. H. Tawney, *The British Labor Movement*, pp. 1, 13-29. New Haven: Yale University Press, 1925.

with 5,500,000 members (some 60 to 70 per cent. of the adult male wage-earners), the latter catering for about 3,500,000 households, or 12,000,000 to 15,000,000 individual persons. Together, whether formally allied in a definite coalition (as is the case with the Labor Party and the majority of trade unions) or merely acting together on matters of common interest (as is the case with the Labor Party and the cooperative movement), they form a threefold organization, concerned respectively with the worker (in the broadest sense of the word) as producer, the worker as consumer, and the worker as citizen, interested in matters outside his immediate economic needs and concerned to impress his aspirations on public policy

This triple structure of democracy, poles asunder, as it is, from the undifferentiated mass of whom early reformers spoke as "the people," is the result of a century of pressure and effort, and either to appreciate the present position or to forecast the future of the Labor Movement in England, it is necessary (as it is in dealing with most English phenomena) to glance shortly at its history. In the century before the war it had passed through three main phases, running roughly from 1815 to 1848, 1850 to 1890, and 1890 to 1914, each of which left its own imprint on its organization and political philosophy. Of the first, the age of the martyrs and the prophets, when the afterglow of the great revolution still hung in the sky, when the golden hopes of 1789 had not yet been quenched for the mass of mankind by the sad doctrine of inherited weakness, when men still believed in an imminent transformation to be accomplished by a swift act of the popular will, I must not speak at length. Born of the social confusion which accompanied the rise of the great industry in the first forty years of the last century and of the economic misery left by twenty-two years of war, its material background was the merging of the old-fashioned and intensely conservative craftsmen and small masters who had formed the aristocracy of labor in a new proletariat of hired wage-earners, and the rise of what seemed to thoughtful workmen a new feudalism, in which mill-owners and mine-owners wielded the power of a medieval *seigneur* without his responsibilities, over populations unprotected by law and (down to the repeal of the Combination Acts in 1824) forbidden to protect themselves by combination. Its characteristic expressions were the doctrines of the early English Socialists Hodgskin, Gray, Bray, and, above all, Owen; a brief outburst of syndicalist trade unionism in which the ideas and even the phrases as to self-government in industry, to be rediscovered ninety years later in the crisis of the recent war, were first minted; and the political agitation known from the document or Charter in which it formulated its demands, as Chartism.

The contrast between that first attempt to create a political labor movement and the party which is its successor to-day is a measure of the

revolution both in ideas and in organization which has overtaken the British working classes in the last three generations. On its surface a continuation of the demand for political democracy which had produced and been disappointed by the first Reform Bill, the real objective of Chartism was economic. As Marx, who watched it carefully and later tried to revive it, realized, it marked the entry into politics, not merely of a new party, but of a new class—the wage-earning proletariat created by the industrial revolution—and its essence was an attempt to make possible social reconstruction by the overthrow of the political oligarchy. The English counterpart of the continental revolutions of 1848, it was at once the last English movement which derived its inspiration and phraseology from the inexhaustible arsenal of eighteenth-century Liberalism and the first political attack upon the social order which had emerged from the growth of capitalist industry. The theory of a primitive age of justice and felicity was used to give point to an onslaught on the wage system, and the doctrine that “all men are born free and equal and have certain natural and inalienable rights” marched hand in hand with the declaration that “labor is the source of all wealth.” It was characteristically English that a movement, nearly all of whose adherents seemed to the ordinary member of Parliament a band of ragged ruffians, should pour its grievances into the parliamentary mold, instead of burning factories and country houses. It was, unfortunately, not less characteristic that of the contemptuous House of Commons which laughed out the last Chartist petition in 1848 hardly a member had the wit to thank Heaven for the inveterate constitutionalism of his fellow-countrymen.

These struggles seem to-day remote. But they are not antiquarian curiosities, and if I have touched on the revolutionary age of the Labor Movement, it is because it left permanent marks on its subsequent development. A student of social history must often have asked himself whether it would not have been possible to avert the tension of which modern labor politics are the expression, by so organizing the great industry as to secure one of two things—either that the ideal of *la carrière ouverte aux talents*, which its pioneers preached, should be realized in fact as well as in phrase, or by incorporating in the new order the best side of the aristocratic paternalism of the old régime. To the economic tendencies which decided that, in England at least, the first possibility should not be actualized, I turn in a moment. The character of early industrialism and the policy of the governments of the day had before 1850 forever stultified the second. For what the agitation of which I have spoken did was something more than to give the working classes the program of political democracy which was to be realized in 1867 and 1884. It meant that they had become conscious of themselves as a new order in society, and that they had organized for defense against the ruthless economic pressure involved in large-scale industry before

employers had admitted its evils or Parliament had blunted them by social legislation. It meant, above all, that they had been fired with the conception, vague but inspiring, of social reconstruction on a Socialist basis, which is neither a modern invention, nor (as is sometimes suggested) a foreign importation, but an authentically native product as old as the Labor Movement itself, and which was to reëmerge, with new weapons, and in a more realistic version, in the last decade of the century.

It was to reëmerge, but only after it had run underground for nearly two generations. Democracy, if it is to be more than a polite formality, implies a high level of cohesion and political intelligence: and any Socialism which is not merely a half-instinctive revolt against social misery, implies these qualities to a greater degree still. In the forties of the nineteenth century the British working classes possessed neither. It was the lack of the stable organization without which a political movement is the blind drifting of social atoms which had dissolved Chartism. It was to the creation of it that the mind of the working classes turned after 1850. Disillusioned with distant visions, distrustful of middle-class idealists, skeptical of the possibility of swift transformation, it set itself to the prosaic task of building up a solid unromantic industrial organization, financially water-tight, businesslike in method, intent on small gains and the needs of the hour, efficient, tough and almost as materially-minded as the employers with whom it bargained. Trade unionism, before the middle of the century a welter of small and temporary associations, hastily improvised to meet an emergency and as hastily collapsing when the emergency was over, began between 1850 and 1880 to assume something like its modern shape, with the organization of these scattered local clubs into great national organizations, first the Amalgamated Society of Engineers in 1850, then the Amalgamated Society of Carpenters and Joiners in 1860, then a score of other organizations in the next twenty years.

The coöperative movement, the other great expression of the working classes, went through an analogous development. In origin frankly Utopian, an attempt, not to transform industrial society, but to escape from it by the foundation of self-sufficing colonies or communities, it experienced the opposite fate to that of Saul, set out to seek a kingdom and found its father's asses, and with the foundation of the Rochdale Pioneers and the adoption of the device of dividend on purchase became the parent of a swiftly growing business organization, the characteristic of which is that it is governed by the consumer, and pays its profits, neither to the owners of capital nor to the workmen, but to those who use the goods.

When, after two years of futile attacks, the Allied armies began to study war seriously in 1916, they dropped the heroic but ineffective policy of endeavoring to advance into the blue, and adopted what was called the tactic of the limited objective, aiming only at clearly defined

gains and consolidating them before they made another advance, until in 1918 that tactic was in its turn superseded. In the mixture of intellectual ferment and practical organization which composes social movements there are similar phases, and each phase has for the time being an equally illusory air of finality. In the revolution against Utopianism, the working-class movement went through an analogous phase of contraction and supposed it to be the only phase possible. Its heroic age seemed to be over, and it settled down to make the best of a world not troubled by burning questions. And, of course, that temper was enormously accentuated by the change in both the political and the economic environment which took place after 1850. On the one hand, the most important of the political reforms demanded by the Chartists were realized with the Reform Act of 1867 and the Ballot Act of 1874; for Disraeli had made the discovery (just after Napoleon III and just before Bismarck) that democracy might be conservative. On the other hand, the economic expansion, which set in after 1850 and reached its climax in the seventies, submerged all old grievances beneath a flood of prosperity.

The years 1860-1890 were the Golden Age of English individualist capitalism, when the doubts of the previous half century were allayed and the writings of its earlier critics forgotten so completely that only in our own day have they been disinterred, when the experimental period seemed to be over, the harvest standing ready to be reaped, and the Utopia of material well-being foretold by the economists seemed to be on the verge of realization. England was the only considerable producer of coal and iron in Europe (and, indeed, at that time, in the world), and had virtually a monopoly of the new manufacturing technique; while, with the development of improved methods of transport and the opening up of the new world, the real cost of raw materials and foodstuffs was falling. The triumph of industry, the increase of exports, the rising standard of consumption, the growing investment of capital abroad, were hailed with universal applause undisturbed by any doubts as to ultimate values, in which only a few querulous men of letters—Carlyle, Ruskin, and, later, Matthew Arnold and William Morris—declined to join. There had been nothing like the universal confidence in the permanence of the established order since the first half of the eighteenth century. There was to be nothing like it, at least in England, again. Charles Dickens' egregious Mr. Podsnap, who held that "This island is blessed, Sir, by Providence, to the direct exclusion of such other countries as there may happen to be," was hardly a caricature of that amazing age. Its symbol and expression—the image which it made to itself—was the Great Exhibition of 1851.

Most persons believe in free competition as long as they are confident of competing successfully. And it was natural that the philosophy of that generation should be individual enterprise, free trade, freedom of contract, security for property, and light taxation. It was equally natural

that, in the special circumstances of the time, the working-class movement should accept it. The swift expansion of trade, combined with the gradual rise in price, put the new national societies in a strong position. Workmen and employers, it seemed, could join hands in exploiting the world together. Lectured by economists on the folly of resisting the laws of political economy, trade unionists took their advice, and set themselves to accumulate the reserves and strengthen the organization needed to enable them to secure the best terms that the market would offer. The result was a period of what an American economist has called business trade unionism. Individualist in economics, and usually Liberal in politics, it turned from the idea of social solidarity as a dream, and concentrated its attention on perfecting the machinery of collective bargaining.

In so far as the working-class movement entered on political activities, it did so with the same reservations. The question of the legal status of trade unionism was causing some anxiety in the later sixties. As a result, three trade unionists ran as candidates at the election of 1869; in the same year a Labor Representative League was formed: and in 1874, for the first time, two trade union officials were returned to the House of Commons. But this tentative political activity did not imply any intention of forming a third party. The struggle between the old régime and the middle classes, of which the most sensational expression had been the repeal of the Corn Laws, was still sufficiently recent for the latter to be regarded as a popular and democratic force, and the Liberal Party, which was their organ, as, *par excellence*, the Party of Progress. Workingmen candidates ran as Liberals and their working-class supporters voted as Liberals. It was generally believed that a small infusion of trade unionists in the House of Commons might be useful as contributing special knowledge. But the two-party system was held to be part of the providential order, and to question the efficacy or sincerity of Liberalism was regarded as profanity.

"English Trade Unionism," a competent German student could write in the eighties, "is the great barrier to the spread of Socialistic ideas." "No Politics in the Union" was the favorite phrase of trade union officials. In the election of 1886 the Labor group in the House of Commons appealed to the electors to support Liberal candidates. Exactly twenty years later, the Labor Party assumed its present name and won its first great electoral successes; most of the younger trade union leaders were members of Socialist organizations; and from that time to this the relations of Labor with the Liberal Party have been, on the whole, even less cordial than with the Conservatives.

The critical period which marked the definite alienation of a large body of popular support from Liberalism was 1890 to 1906, and the main causes of the new attitude were three: changes in the economic environment, changes in economic and political thought, and changes in

the legal position of the Trade Union Movement. On the first I must not dwell, but it was fundamental. Political theory is usually the expression of political facts, and by the eighties it was beginning to be evident that the economic phase which had given its magic to the liberal ideology was passing. For one thing, the position of almost unquestioned monopoly which Great Britain had held thirty years before had come to an end with the industrial revolutions which took place in the last thirty years of the century on the continent of Europe and in America, and free competition lost in attractiveness in proportion as it gained in reality. For another thing, industrial organization was undergoing sensational though little noticed changes. In place of the old-fashioned individual enterprise of the first three-quarters of the century, a new world of corporate organization was arising, which separated ownership from management, depersonalized industrial relations, and gradually brought into existence a new proletariat of salaried brainworkers. The movement (after 1890) towards the formation of trusts and combines followed, and, as it spread, deprived of all relevance the conventional doctrine that the interests of the consumer and of the community were secured by the mutual rivalry of competing producers.

For these developments Liberalism, which repeated economic formulæ, hammered out in the widely different environment of half a century before, seemed to have no specific. It was significant that after about 1880 Liberal politics and Social Philosophy, which for two generations had been close allies, more and more drifted apart. John Stuart Mill, in the later years of his life, had become something like a Socialist. The historical study of jurisprudence and of economic development, which reached England *via* Germany in the sixties, undermined accepted formulæ and categories, and suggested that some of the supposed "Laws of Political Economy" were little more than statements of the nastier habits of Lancashire cotton spinners. Ruskin, and later William Morris, denounced capitalist industry as the enemy of honesty of work and dignity of character. Marx, who lived in England from 1849 until his death in 1883, and whose first volume of *Capital* was published in 1867 and translated in 1886, preferred to clothe his philosophy in the garb of history, and taught that the tyrant was already doomed to destruction by the slave which he had created for his service.

In a country so incurably politically-minded as England, it was inevitable that all this ferment should find political expression, and the eighties saw an outburst of Socialist organizations. Those which were, and remain, really influential were two. The first was the Fabian Society, founded in 1884, which has never included more than some two thousand members, but which, thanks, above all, to Sidney and Beatrice Webb and to Bernard Shaw, has exercised a power quite disproportionate to its members, and which set itself to turn Socialism from a romantic Utopian-

ism into prosaic schemes of reorganization based on detailed investigation and capable of piece-meal realization through the existing machinery of national and local government. The second was the Independent Labor Party. Founded in 1893, and led successively—to mention no others—by Keir Hardie, Ramsay MacDonald and Philip Snowden, it accepted the Fabian conception of Socialism as a policy to be realized by the ordinary processes of constitutional government, and had as its object to bring into existence a Labor Party which would not be a mere wing of Liberalism, but would possess its own independent organization and represent a new and distinctive body of social doctrine.

There have been European countries—notably Germany—in which socialist parties have been formed on a dogmatic basis and have subsequently endeavored, with greater or less success, to capture the electorate. In England, owing, doubtless, to the notorious incapacity of Englishmen for speculation, the course followed has been the opposite. It was obvious that if a Labor Party was to be formed, it must be the expression, not merely of an academic doctrine, but of living social forces. The spontaneous organization of the working classes was trade unionism, and the fate of the new political movement would be decided by the attitude of the unions towards it. The Socialists, who were interested in the victory of an idea, not of a word, accepted, with few exceptions, that position. As a consequence, the crucial issue at the end of the century was a struggle for the political soul of trade unionism, waged between those who desired independent political action and those, mostly the old guard of officials, who insisted that trade unionism should not be contaminated by contact with politics.

In a country like England where industrial relations are affected at a thousand points by the action or inaction of governments, the separation between politics and industry is, at best, highly artificial. It was all very well to say that trade unionists, instead of forming a new and separate political party, should support whichever of the two existing parties had the best record. But, even apart from the reluctance of the thoughtful workman to resign himself forever to what appeared to him to be a choice hardly less attractive than that offered by the formula "Heads I win, tails you lose," there was the fact that government seemed to him to involve something a little more complicated than a periodical auction of votes at elections. He desired a party controlled by his representatives, to discuss, formulate and promote his political ideals, for the same reason as he required a union controlled by his representatives to protect his industrial interests.

It is probable, therefore, that in any case trade unionism would sooner or later have been drawn into independent political activity. But the change was enormously hastened by two causes; first, the growth of

organization among the least skilled and worst paid workers, who were least capable of protecting themselves by collective bargaining and therefore most interested in the development of an active social policy by the State; secondly, by the legal difficulties in which the industrial movement found itself involved. The early history of trade unionism in all countries has turned principally on one point—the struggle to establish and extend the right of professional association. Prohibited by law in England down to 1824, trade unionism enjoyed a qualified legal toleration, subject to grave disabilities, down to 1871, and then, as the result of a series of Acts, passed in 1871, 1875 and 1876, acquired what was thought for nearly a generation to be a secure legal position. The long series of prosecutions under the criminal law came to an end. Unions were not to be illegal merely because they were in restraint of trade. They obtained a definite legal status, could hold property, and could secure protection for their funds. Finally, in conferring these rights, Parliament expressly refrained (or, at any rate, intended to refrain) from making trade unions liable in their corporate capacity.

That legislation, it was thought, closed the long struggle of trade unions for the right to exist, and by means of it they enormously increased their membership and their power. But then the unexpected happened. The courts proceeded to interpret the legislation of the seventies in a way which was, apparently, almost as bewildering to lawyers as to trade unionists. On the one hand, though the criminal law could no longer be evoked against them, they increasingly found themselves liable to civil proceedings through extensions of the doctrine that interference by a combination with the business of another person is an actionable wrong, and were penalized for such actions as publishing a black list of firms, declining to work with non-unionists, or even peaceful picketing. On the other hand, side by side with this nibbling away of particular powers, there occurred a more sensational innovation. In 1900 a strike occurred on an obscure railway in Wales, of which not one Englishman in a thousand had previously heard. The company sued, not the workmen who had broken their contracts, but the trade union to which they belonged. To the astonishment not only of trade unionists, but of some considerable part of the legal profession, the House of Lords held that, in spite of the Act of 1871, a trade union could be sued in its corporate capacity, and mulcted in damages the union concerned to the tune of £23,000. The effect of the two sets of decisions together was revolutionary. A large number of particular forms of trade union action had been declared to be illegal. Henceforward, it seemed scarcely an exaggeration to say, unions might find themselves in danger of paying damages from their corporate funds for almost any action involving financial loss to an employer.

Into the legal theory of these decisions, interesting though it is, I

must not enter. From the point of view of the men who were endeavoring to build up a political Labor Movement, they were a godsend. The judges were instruments in the hands of Providence, and it is hardly a paradox to say that one principal creator of the modern Labor Party was the House of Lords. Old-fashioned trade unionists were protesting that the movement would be ruined if it entered politics: suddenly, thanks to the judges, it appeared that it would be ruined if it did not. The consequence was to turn independent political action from a remote ideal into an immediate and highly practical issue. As the result of a conference held in February, 1900, between representatives of the Trade Union Congress and three Socialist societies, a Labor Representation Committee was formed, composed of representatives of those bodies, which was, in effect, the modern Labor Party, though it was not until six years later that it took its present name. Its success, though not immediate, was, for a conservative country like England, unexpectedly rapid. It won two seats in the election of 1900, four by-elections between 1900 and 1906, twenty-nine seats in the elections of 1906, and in 1914, on the eve of the War, it had forty-two members. Its membership rose quickly—from less than half a million in 1901 to about one and one-half millions in 1914. By the latter date, all the principal unions had joined it.

Though the political environment in the years preceding the War was unfavorable to Labor politics—public attention being riveted on the struggle of the Liberal Government with the House of Lords and on the Irish Question—the new party, a tiny minority of the House of Commons, achieved certain conspicuous parliamentary successes, of which the most important were the Trade Disputes Act, giving legal security to trade unions, the Trade Boards Act, establishing in minimum wage for certain classes of workers, the Old Age Pensions Act, the Act establishing a legal eight-hour day in coal mines, and the Trade Union Act, reversing the Osborne judgment and allowing unions, subject to certain safeguards for dissentient minorities, to impose levies on their members for political purposes. Most significant of all, the Labor Party steadily developed an outlook and policy distinct from that of its two opponents. In order to avoid excluding trade unionists who were not Socialists, it declined to declare itself a Socialist Party. But it passed Socialist resolutions at its conferences, and it insisted that its representatives should act in Parliament in complete independence of other parties. . . .

2. FROM 1910 TO 1914²

The few years immediately preceding the Great War were the occasion of a general ferment of industrial unrest. Strikes not merely in-

² Reprinted from *A Short History of the British Working Class Movement*, by G. D. H. Cole, Vol. III, pp. 70-77. New York, The Macmillan Co., 1927.

creased greatly in number and extent, but also changed their essential character. Trade Unionism woke out of its long quiescence, and became class-conscious, militant, aggressive. Unofficial and spontaneous movements were common; the old leaders seemed to be losing their grip. Conciliation and arbitration in trade disputes, reformism in politics, were alike severely criticized. A new idea sprang up, and won wide acceptance, of using Trade Unionism not merely as a means of defending wages and conditions, but as an offensive weapon in a war upon capitalist Society. Names and ideas were imported from abroad to convey the new meanings which were struggling for coherent expression. Syndicalism and Industrial Unionism, and later Guild Socialism, became the gospels of the day among the younger Trade Unionists and Socialists. While the Labor Party in Parliament was shaping its course in close alliance with the Liberalism of Lloyd George, Labor in the country appeared to be worshipping new gods, and bent on the creation of a new Society by "direct action."

All this is, of course, an intellectualization of what really happened. The underlying movement was a mass movement of sheer reaction against the failure of either orthodox Trade Unionism or moderate parliamentarism to secure any improvement in the working-class standard of life. The theorists, working-class and middle-class alike, who sought to give this movement form and direction and to interpret its vague strivings into a new social gospel, never really captured the great mass of the working class. They might lead it in this or that particular struggle, and help to stir up troubles that would not have occurred without their impulsion. But the mass, as ever, was thinking not of Utopia and not even of the class war, but mainly of the immediate issues involved in each separate dispute. If a new temper was abroad, and the moderate leaders found their control of the movement seriously threatened, this did not imply a wholesale conversion of the working class to revolutionary doctrines.

The change was, nevertheless, startling enough. Never since the fall of Owenism in 1834 had Trade Unionism been at all widely regarded in England as a positive instrument for the creation of a Socialist Society. William Morris and his followers of the Socialist League had come near this idea in the late eighties; but they had never formulated it clearly, and by other Socialists Trade Unionism had either been denounced as a reactionary division of the workers into narrow "craft" sections or regarded mainly as an instrument to be used for the building up of a working-class political party. The former had been the attitude of the Social Democratic Federation in its early years; the latter was characteristic of Keir Hardie and the Independent Labor Party movement. And, in the eyes of orthodox Trade Union leaders, the movement had been no more than a means of maintaining and improving the conditions of employment within the capitalist system.

On all these conceptions of Trade Unionism the new movements declared war. To the moderate Trade Unionist they replied by citing the failure of orthodox collective bargaining to secure, in recent years, any real improvement in working-class conditions. To the Labor Party politician, they pointed out the equal failure of political action to yield either better wages or any vital modification of the capitalist system. And to the remaining upholders of the old S D F. attitude they replied that Trade Unionism, though it might have been often reactionary in fact, need not be so if the militants would but set out to inspire in it a different tone and temper. "Direct Action" became the new gospel. No one would or could help the workers unless they helped themselves, by taking into their own hands the task of organizing a mass attack upon the capitalist system and all its works.

Elsewhere I have sought to analyze in detail the ferment of doctrine that went to the making and interpretation of this new movement among the workers. It drew its inspiration from many sources. In France the Trade Unions, weak in numbers but rich in intellectual leadership, had long been pursuing, largely under semi-anarchist inspiration, a militant policy of guerrilla warfare against the employers and the State. Traveling light, unburdened by friendly benefits such as the older British Unions were accustomed to provide, the French *syndicats* lost little by a defeat, and were able easily to re-form and launch their attacks in a new place. Lacking the British stability, they were far more mobile and adaptable. And they had against them a capitalism far less developed and organized than the British system.

Under their Anarchist inspirers, the Trade Unions of France had denounced working-class parliamentary action as useless, and repudiated all dealings with the Socialist Party. Instead, they had preached a doctrine of "Direct Action," which the theorists of the movement elevated into a "social myth." There were to be strikes and strikes, wearing down the resistance of the employers and the capitalist State, until the great day when the General Strike of all the workers would end the capitalist system and usher in the new workers' Society. In this Society there would be no government and no coercion. Power would pass to the workers, organized in their natural industrial and social groups. The Trade Unions would become the administrative agents of the new social order. Moreover, the new Society would be essentially localized—based on the local fellowship of the workers in a particular place. Only so could the workers act directly, without placing their reliance on the sham of representative democracy. Similarly, Trade Union policy in the present must be based on local action. The Trades Council must count for more than the national Trade Union; the spontaneity of the movement, and its direct dependence on the rank and file, must be the essential basis of all effective working-class action.

With this Syndicalism from France was curiously blended another stream of doctrine, flowing from the United States. In France, the small employer still predominated; the American workers were concerned with the gigantic mass-production factory and the trust. In America, accordingly, revolutionary Trade Unionism had taken to some extent a different turn. Active chiefly among the low-paid immigrant workers, and in strong hostility to the moderate policy of the main body of American Trade Unionists, the Industrial Workers of the World had from 1905 been preaching the doctrine of mass organization in "One Big Union" based on the direct antagonism of the working and employing classes. Centralization was the watchword of this movement as much as localism of the French; but both alike stressed the necessity of Direct Action as the means to social revolution. The workers must not look to the politicians to do things for them, or to build the Socialist State. They must do things for themselves both in fighting the employers under capitalism and in building up the new workers' Society to take its place. For them, as for the French, the ideal in prospect was a Workers' Republic, based on the industrial organization of the working class. But for one strong centralization, and for the other guerrilla warfare on a local basis, was the instrument to be employed.

The would-be interpreters and leaders of the Labor unrest in Great Britain seized on these two bodies of doctrine, and set out to make, with their aid, an interpretation suited to British conditions. There emerged a variety of movements, which for a time made up by their ceaseless activity for their lack of coherence and direction. In 1910 Tom Mann, who had been a leader in the great Dock Strike of 1889, returned from Australia and South Africa with vigor unimpaired to become a leader of the new movement. The Industrial Workers of the World had exerted a good deal of influence in Australia, especially upon the miners and transport workers, and Mann returned both well acquainted with their doctrines and with a rooted detestation of the systems of wage regulation and compulsory arbitration in force in the Australian States. Finding Syndicalism widely preached, he incorporated the two doctrines into one, and combined with them his old advocacy of the shorter working day as the first objective of working-class policy. In a series of monthly pamphlets, published during 1911 under the title of *The Industrial Syndicalist*, and in countless speeches up and down the country, he put the force of his eloquence and personality behind the movement for a new fighting Trade Unionism on a class basis. His influence counted for a great deal in the great wave of unrest which swept over the country in 1911.

As soon as the new ideas began to gain acceptance, it became manifest that the Trade Unions, with their existing structure, were quite unsuited for acting upon them. In almost every industry except the mines,

the main body of the workers was split up among a number of sectional and often overlapping Unions organized on a basis of "craft." In the cotton, printing and building industries, for example, each craft or group of crafts had its separate Union; in the engineering and shipbuilding, as well as in the building trades, the skilled and unskilled workers were organized apart, and were often on bad terms with each other; in the transport trades there jostled one another a large number of independent societies organized on almost every conceivable basis.

It seemed, to the advocates of the new ideas, a bounden duty to begin with some attempt at straightening out this tangle. The first step was the formation, in 1910, of the National Transport Workers' Federation, linking together all the heterogeneous mass of Trade Unions in the sea-going, waterside and road transport trades. Powerful movements for promoting amalgamation on industrial lines were launched in the railway, building, printing, engineering and other industries. The "Amalgamation Movement," with connected organizations for the various industries, became the chief outward and visible sign of the growing acceptance of the new militant policy by the younger men in the Trade Unions. "Amalgamation" became almost a synonym for the militant New Unionism of the Syndicalists and Industrial Unionists. "Reform" and "Forward" Movements were launched by the miners in various coalfields; and in South Wales, where the extremist elements were strongest, a new policy was preached in *The Miners' Next Step*.

Published in 1912, this famous pamphlet attacked, not only the orthodox conceptions of Trade Union policy, but also the policy of nationalization as preached by the ordinary propagandists of Socialism. For its authors, the State, as well as the employer, was the enemy; and the means of change was an intensified form of revolutionary industrial action, based on a strong, highly centralized organization of the workers. By strike upon strike, capitalism was to be made unprofitable, until the miners were able to take the industry into their own hands, and conduct it under a complete system of working-class control. "The Mines for the Miners," said the South Wales revolutionaries; and cries such as "The Railways for the Railwaymen" echoed their policy elsewhere. The place of *The Industrial Syndicalist* was taken in 1912 by a new journal, *The Syndicalist*, edited by Guy Bowman, and owing more to French than to American influence; and there appeared also *The Syndicalist Railwayman*, *The South Wales Worker*, *Solidarity*, and a host of other journals expressing, with varying emphasis, the new ideas.

Meanwhile, in the *New Age*, a small body of intellectuals, ably headed by A. R. Orage and S. G. Hobson, was developing the new doctrines along another line. The *New Age* had long been an acute critic of orthodox Labor policies. It had supported Victor Grayson in the troubles of 1908, and had preached, at least from that date, a doctrine which made

economic rather than political action the clue to social change. Gradually, this doctrine emerged as Guild Socialism. It began as a plea by a medievalist craftsman, Arthur J. Penty, for a restoration of the guild system in industry. But after 1911, in the hands of S. G. Hobson and Orage, it became a plea for the capture of control in industry by National Guilds based on, and arising out of, the Trade Unions. The workers, it was urged, should organize not merely for defense but for the winning of control; the protective Trade Unions should turn into great workers' corporations which would demand and secure from a reorganized State the whole responsibility for the conduct of industrial affairs.

Obviously, this doctrine owed much to French Syndicalism and something to American Industrial Unionism. It took these doctrines, and made of them a new doctrine more directly applicable to British conditions. If it had few direct adherents, their skill and activity made them influential far beyond their numbers in the formation of working-class policy.

These various movements, it should be observed, went on side by side. All of them remained largely formless and unorganized, and all depended for their influence on the existence among the British workers of a great mass of unrest which was not caused, though it may have been accentuated, by their propaganda. They did not create the unrest; they were only its would-be interpreters and leaders.

The rise of these doctrines, and the unrest itself, profoundly stirred the whole world of Labor. Among the older leaders, both of the Trade Unions and of the Socialist Societies, they aroused deep hostility. Ramsay MacDonald wrote a whole book against Syndicalism; Philip Snowden, in *The Living Wage*, set out to demonstrate the futility of the strike weapon as an instrument of social change. The Trade Union leaders, roundly denounced by the "amalgamationists," retorted with allegations of mischief-making and treason to the Trade Union Movement. The pursuance of a virtual Liberal-Labor alliance in Parliament coincided with a strike epidemic which the orthodox Trade Union leaders found themselves largely unable to control.

Meanwhile, Trade Union membership was increasing by leaps and bounds. The Trade Unions from 1907 to 1909 had about two and a half million members. By the end of 1911 their membership passed three, and by the end of 1913 four millions. Almost every Union shared in the increase. Greatest among the less skilled types of workers, it was hardly less marked among the engineers and cotton operatives than among the railwaymen, transport workers and general laborers.

Soon, an old dream was realized; and Labor ventured into daily journalism. *The Daily Herald*, beginning in 1911 as a strike sheet, became, under George Lansbury as editor, the organ of all the new movements and tendencies, hitting out light-heartedly at Trade Union leaders and politicians alike, and opening its columns equally to all schools of

Amalgamationists, Syndicalists, Industrial Unionists, and Guild Socialists. Living from hand to mouth, and often threatened with death through failure to pay for the next day's paper—let alone the printers' wages—it survived as the rallying point for militants of all schools right through the period of unrest which came to an end with the outbreak of the Great War. Meanwhile, in 1912, the more moderate elements had launched a newspaper of their own *The Daily Citizen*, under the official control of the leaders of the Labor Movement, competed with the *Herald* for working-class support, and waged, during its two years of life from 1912 to 1914, truceless war on the new doctrines and their exponents.

These were stirring times. The great unrest made the Labor problem beyond dispute the question of the day. The ordinary newspapers were filled with news of strikes and threats to strike. Denunciations of the new extremism were everywhere. But the ferment of ideas attracted into the working-class movement a rapidly growing body of men and women from all classes and occupations. The Socialist Societies, as well as the Trade Unions, increased rapidly in membership and activity.

The excitement was at its height from the latter part of 1911 to the end of 1913. Thereafter came, as we shall see, a lull. There were signs of a renewal of intense Trade Union activity about the middle of 1914; but at that point the outbreak of war sharply cut the movement short. What would have happened if there had been no war in 1914 the historian need not profess to know. Largely, this would have depended on the course of trade; 1911 and 1912 were both, from this standpoint, good years; and 1913 was, for most industries, a year of unexampled prosperity; 1914 showed some slight falling off, and it may be that, in August, a trade slump was on the way. At all events, in that month the outbreak of war changed the entire situation. The great unrest did not die; but it took, perforce, new forms and directions. The story of the years from 1910 to 1914 is a story without an ending; but in the events of that period can be seen the foreshadowing of much that has happened since the Great War. . . .

3. BRITISH LABOR AND THE WAR ³

. . . During the war (1914-18) the task of the Labor Party was one of exceptional difficulty. It had necessarily to support the Government in a struggle of which five-sixths of its Parliamentary representatives and probably nine-tenths of its aggregate membership approved. The very gravity of the national crisis compelled the Party to abstain from any action that would have weakened the country's defense. On the other hand, the three successive Administrations that held office during the

³ Reprinted from Sidney and Beatrice Webb, *The History of Trade Unionism*, pp. 690-699. New York, Longmans, Green & Co., 1920.

war were all driven by their needs, as we have already described, to impose upon the wage-earners cruel sacrifices, and to violate, not once but repeatedly, all that Organized Labor in Britain held dear. The Party could not refrain, at whatever cost of misconstruction, from withstanding unjustifiable demands by the Government;⁴ protesting against its successive breaches of faith to the Trade Unions; demanding the conditions in the forthcoming Treaty of Peace that, as could be already foreseen, would be necessary to protect the wage-earning class; standing up for the scandalously ill-used "conscientious objectors," and doing its best to secure, in the eventual demobilization and social reconstruction, the utmost possible protection of the mass of the people against Unemployment and "Profiteering." In all this the Labor Party earned the respect of the most thoughtful Trade Unionists, but necessarily exposed itself to a constant stream of newspaper misrepresentation and abuse. Any opposition or resistance to the official demands was inevitably misrepresented as, and mistaken for, an almost treasonable "Pacifism" or "Defeatism"—a misunderstanding of the attitude of the Party to which color was lent by the persistence and eloquence with which the small Pacifist Minority within the Party—a minority which, it must be said, included some of the most talented and active of its leading members in the House of Commons—used every opportunity publicly to denounce the Government's conduct in the war. But although the Pacifist Group in Parliament was strenuously supported in the country by the relatively small but extremely active constituent society of the Labor Party styled The Independent Labor Party—the very name helping the popular misunderstanding—the Trade Unionists, forming the vast majority of the Labor Party, remained, with extremely few exceptions, grimly determined at all costs to win the war.

If Organized Labor had been against the war, it is safe to say that the national effort could not have been maintained. The need for the

⁴It was, for instance, only the determined private resistance of the Trade Unionist leaders of the Labor Party that compelled the Government to abandon its project of introducing several hundred thousand Chinese laborers into Great Britain; a project which, if carried out, not only might have been calamitous in its effect upon the Standard of Life of the British workman—not to mention other evil consequences—but would almost certainly have also led to a Labor revolt against the continuance of the war. In this connection may be noted the valuable work done throughout the war, not in the interests of Trade Unionism only, but in those of the wage-earning class, and of the community as a whole, by the War Emergency Workers' National Committee (J. S. Middleton, Honorary Secretary), a body which included representatives not only of the Parliamentary Committee, Labor Party, and General Federation, but also of the Coöperative Union, the National Union of Teachers, and other organizations. The valuable though often unwelcome assistance which this Committee gave to the Government by insisting on the redress of grievances that officialdom would have ignored, and by its working out of policy and persistence of agitation on such matters as pensions, limitation of prices, food-rationing, rent restriction, and other subjects, on which its publications had marked results, deserve the attention of the historian.

formal association of the Labor Party with the Administration was recognized by Mr. Asquith in 1915, when he formed the first Coalition Cabinet, into which he invited the chairman of the Parliamentary Labor Party, Mr. Arthur Henderson (Friendly Society of Ironfounders), who became President of the Board of Education. Later on, in 1916, Mr. G. N. Barnes (Amalgamated Society of Engineers) was appointed to the new office of Minister of Pensions. When, in December, 1916, Mr. Asquith resigned, and Mr. Lloyd George formed a new Coalition Government, Mr. Henderson entered the small War Cabinet that was then formed, with the nominal office of Paymaster-General; whilst Mr. Barnes continued Minister of Pensions, Mr. John Hodge (British Steel Smelters' Society) was appointed to the new office of Minister of Labor, and three other members of the Party (Mr. W. Brace, South Wales Miners; Mr. G. H. Roberts, Typographical Society; and Mr. James Parker, National Union of General Workers) received minor ministerial posts.

Throughout the whole period of the war all the several demands of the Government upon the organized workers, the abrogation of "Trade Union Conditions" in all industries working for war needs, the first and second Munitions of War Acts, the subversion of individual liberty by the successive orders under the Defence of the Realm Acts, the successive applications of the Military Service Acts, the imposition of what was practically Compulsory Arbitration to settle the rates of wages—were accepted, though only after serious protest, by large majorities at the various Conferences of the Labor Party, as well as by the various annual Trades Union Congresses, in spite of the resistance of minorities, including more than pacifists. The entry of Mr. Henderson into Mr. Asquith's first Coalition Government, and that of Mr. Barnes into Mr. Lloyd George's War Cabinet, together with the acceptance of ministerial office by other leading members of the Labor Party—though any such ministerial coalition was in flagrant violation of the very principles of its existence, and was strenuously combated on grounds of expediency by many of its members who loyally supported the war—equally received the endorsement of large majorities at the Party Conferences. From the beginning of the war to the end, the Labor Party, alike in all its corporate acts and by the individual efforts of its leading members (other than the minority already mentioned), stuck at nothing in its determination to help the Government to win the war.

More controversial were the persistent efforts made by the Labor Party to maintain its international relations with the Labor and Socialist Movements of Continental Europe. From the first it was seen to be important to get the representatives of the Trade Unions and Socialist organizations of the Allied Nations, and not merely their Governments, united in a declaration of the aims and the justification of a war that was everywhere outraging working-class idealism. Such a unanimity was

successfully achieved in February, 1915, at a conference, held in London at the instance of the Labor Party, of delegates from the working-class organizations of France, Belgium, and Great Britain, with Russian representatives, then allied in arms against the Central Empires. Later on, when a Minority Party had been formed among the German Socialists, and when the Austrian and Hungarian Working-class Movements were also in revolt against the militarism of their Government, repeated efforts were made by the Labor Party to encourage this revolt, and for this purpose to obtain the necessary Government facilities for a meeting, in some neutral city, of the working-class "International," at which the Allied Case could be laid before the neutrals, and a basis found for united action with all the working-class elements in opposition to the dominant military Imperialism. After the Russian revolution of March, 1917, the Petrograd Workmen's and Soldiers' Council actually issued an invitation for a working-class "International" at Stockholm; and the participation of the British Labor Party in this International Congress, which was not then favored by Mr. Henderson, received at one time no small support from the Prime Minister, Mr. Lloyd George. In the end the Government despatched Mr. Henderson on an official mission to Petrograd (incidentally empowering him, if he thought fit, to remain there as Ambassador at £8000 a year). Meanwhile the proposal for an International Congress had been modified, first into one for a purely consultative gathering, and then into one for a series of separate interviews between a committee of neutrals and the representatives of each of the belligerents in turn, with a view to discovering a possible basis for peace—a project to which Mr. Henderson, from what he learnt at Petrograd, was converted. A National Conference of the Labor Party in August, 1917, approved of participation in such a Congress at Stockholm; but the French and Italian Governments would not hear of it, and Mr. Lloyd George went back on his prior approval, absolutely declining to allow passports to be issued. Amid great excitement, and under circumstances of insult and indignity which created resentment among the British working class, Mr. Henderson felt obliged to tender his resignation of his place in the War Cabinet, in which he was succeeded by Mr. Barnes, who was getting more and more out of sympathy with the majority of the Party. The Labor Party Executive, in alliance with the Parliamentary Committee of the Trades Union Congress, then applied itself to getting agreement among the Labor and Socialist Movements of the Allied Nations as to the lines on which—assuming an Allied victory—the terms of peace should be drawn, in order to avert as much as possible of the widespread misery which, it could be foreseen, must necessarily fall upon the wage-earning class. In this effort, in which Mr. Henderson displayed great tact and patience, he had the implicit sanction of the British Government, and, with some reluctance, also of the Gov-

ernments of the other Allied Nations by whom the necessary passports were issued for an Inter-Allied Conference in London in August, 1917, which was abortive; for provisional discussions at Paris in February, 1918; and for a second Inter-Allied Conference at the end of the same month in London, which resulted in a virtually unanimous agreement upon what should be the terms of peace, on a basis already approved on December 28, 1917, by a Joint Conference of the Trades Union Congress and the Labor Party, and widely published all over the world. The terms thus agreed were, in fact, immediately adopted in outline in a public deliverance by Mr. Lloyd George as those on which Germany could have peace at any time; and the same proposals were promptly made the basis of President Wilson's celebrated "Fourteen Points" on which eventually (but only after another ten months' costly war) the Armistice of November 11, 1918, was concluded. Profound was the disappointment, and bitter the resentment, of the greater part of the organized Labor Movement of Great Britain when it was revealed how seriously the diplomatists at the Paris Conference had departed from these terms in the Treaty of Peace which was imposed on the Central Empires.⁵

We have already attempted to sum up the effect of the Great War on the industrial status of Trade Unionism. It is more difficult to estimate its effect on the political organization of the movement. The outbreak of the war had found the Labor Party, in the see-saw of Trade Union opinion to which we have elsewhere referred, suffering from an inevitable disillusionment among Trade Unionists as to the immediate potency of Parliamentary representation—a disillusionment manifested in the outbreak of rebellious strikes that characterized the years 1911-14. The achievements of the Labor Party in the House of Commons had fallen

⁵It is difficult not to be struck with the greater breadth of vision, the higher idealism, and (as we venture to say) the larger statesmanship of the Labor Party in its projects and proposals for the resettlement of the world after the Great War, compared with those which the statesmen and diplomatists of the capitalist parties of Great Britain, France, Italy, and, as we grieve to say, also the United States, with the acquiescence of deliberately inflamed popular electorates, succeeded in embodying in the Treaty of Peace. Apart from the indefensible redistributions of political sovereignty, not essentially differing in spirit from those of the Congress of Vienna in 1814-15 (and probably less stable even than these), against which Labor opinion had strongly protested in advance, it is impossible not to regret the failure to incorporate in the Treaty the proposals, for which the Labor Party had secured the support of the organized working-class opinion of the world, for (i.) the universal abandonment of discriminatory fiscal barriers to international trade; (ii.) the administration of Colonial possessions exclusively in the interest of the local inhabitants, and on the basis of equality of opportunity for traders of all nations; (iii.) concerted international control of the exportable surplus of materials and food-stuffs of all the several countries, so as to mitigate, as far as possible, in the general world-shortage which the Labor Party foresaw, the inevitable widespread starvation in the most necessitous areas, whether enemy, allied, or neutral; (iv.) deliberate Government action in each country for the prevention of unemployment, instead of letting it occur and then merely relieving the unemployed. In questions of foreign policy the Labor Party, inspired by its idealism, has shown itself at its best, instead of this department of politics being, as is often ignorantly assumed, altogether beyond its capacity.

short of the eager hopes with which the new party had raised its standard on its triumphant entry in 1906. In 1914, it may be said, the Labor Party was at a dead point. The effect upon it of the Great War was to raise it in proportion to the height of the vastly greater issues with which it was compelled to deal. Amid the stress of war, and of the intensely controversial decisions which it had necessarily to take, the Labor Party revised its constitution, widened its aims, opened its ranks to the "workers by brain" as well as the workers by hand, and received the accession of many thousands of converts from the Liberal and Conservative Parties. It made great progress in its difficult task of superimposing, on an organization based on national societies, the necessary complimentary organization of its affiliated membership by geographical constituencies. It equipped itself during the war, for the first time, with a far-reaching and well-considered program not confined to distinctively "Labor" issues, but covering the whole field of home politics, and even extending to foreign relations.⁶ The formulation of such a program, from beginning to end essentially Socialist in character, and including alike ideals of social reconstruction and detailed reforms of immediate practicability, together with the whole-hearted adoption of this program, after six months' consideration by the constituent societies and branches, was a notable achievement, which placed the British Labor Party ahead of those of other countries. Moreover, the formulation of a comprehensive social program and of "terms of Peace," based on the principles for which the war had ostensibly been fought—principles which were certainly not carried in the Treaty of Peace—transformed the Labor Party from a group representing merely the class interests of the manual workers into a fully constituted political Party of national scope, ready to take over the government of the country and to conduct both home and foreign affairs on definite principles. Taken together with the intellectual bankruptcy of the Liberal Party and its apparent incapacity to formulate any positive policy, whether with regard to the redistribution of wealth within our

⁶ The new constitution and enlarged program which the Labor Party adopted at its Conferences of 1917-18, after six months' consideration and discussion by the constituent organizations, were little more than a ratification for general adoption of what had become the practice of particular districts. Thus, the more active Local Labor Parties, such as those of Woolwich and Blackburn, had long welcomed the adhesion of supporters who were not manual workers. The successive annual Conferences had passed resolutions which, taken together, amounted to a pretty complete program of constructive legislation, wholly Collectivist in principle. Hence the deliberate and formal opening of the Party, through the Local Labor Parties, to "workers by brain" as well as "workers by hand"; and the explicit adoption, as a program, of *Labor and the New Social Order* were not such innovations as the newspapers made out and as the public generally supposed. But they created a sensation, not only in the United Kingdom, but also in the United States and in the British Dominions; and they led to a considerable accession of membership, largely from the professional and middle classes, which was steadily increased as the unsatisfactory character of the Treaty of Peace, the continued "militarism" of the Government, and the aggression of a "Protectionist" capitalism became manifest.

own community or with regard to our attitude towards other races within or without the British Empire, the emergence of the Labor Party program meant that the Party stood forth, in public opinion, as the inevitable alternative to the present Coalition Government when the time came for this to fall. The result was that, aided by the steady growth of Trade Unionism, the Party came near, between 1914 and 1919, to doubling its aggregate membership. When hostilities ceased, it insisted on resuming the complete independence of the other political parties, which it had, by joining the successive Coalition Governments, consented temporarily to forego; and such of its leaders as refused to withdraw from ministerial office were unhesitatingly shed from the Party. Meanwhile, the extension of the franchise and redistribution of seats, which had been carried by general consent in the spring of 1918, turned out to raise the electorate to nearly treble that of 1910, whilst the new constituencies proved to have been so adjusted as greatly to facilitate an increase in the number of miners' representatives. When the General Election came, in December, 1918, though the Labor Party fought under great disadvantages and it was seen that most of the soldier electors would be unable to record their votes, it put no fewer than 361 Labor candidates in the field against Liberal and Conservative alike, contesting two-thirds of all the constituencies in Great Britain. In face of a "Lloyd George tide" of unprecedented strength these Labor candidates received nearly one-fourth of all the votes polled in the United Kingdom; and though five-sixths of these numerous Labor candidatures were unsuccessful (including, unfortunately, most of its ablest Parliamentarians such as Messrs. Henderson, MacDonald, Anderson, and Snowden), the Party increased its numerical strength in the House of Commons by 50 per cent., and, to the universal surprise, returned more than twice as many members as did the remnant of the Liberal Party adhering to Mr. Asquith—becoming, in fact, entitled to the position of "His Majesty's Opposition."

4. WORKERS' EDUCATION IN ENGLAND AND AMERICA

Undoubtedly one reason for the strength of the British Labor Movement to-day is the educational work which has been done in arousing the workers to a realization of their needs and potentialities. The beginnings of this movement date back to the founding of the People's College in 1842 by a minister of Sheffield. This institution refused to accept financial aid from any one not a student at the college. They felt that complete economic independence and self-government would permit of more fearless truth-finding. As a result of the work of this school, Frederick Maurice, a Christian Socialist, decided to found a workers' college in London. Afterwards he interested others in starting similar colleges elsewhere, most of

them being founded in close association with the coöperative movement. Ruskin College, the first residential school for working men, was founded in 1899 at Oxford through the initiative of three Americans, Mr. and Mrs. Walter Vrooman and Charles Beard. It sought to provide "a training in subjects which are essential to working class leadership." It has accommodations for only fifty students, but over 15,000 have carried on correspondence courses. The annual fee is about \$250.

Albert Mansbridge, a worker in the Cooperative, decided to try to promote education among the working class and in 1903, together with his wife, organized an association for this purpose. On July 14th a committee composed of prominent people was appointed to back the new movement. It consisted entirely of members of the coöperative and trade unions. For the first three years the movement had only \$1,500 for its support, but further financial aid was soon forthcoming from many workers' organizations, including the Parliamentary Committee of the Trade Union Congress. The first national congress was held in 1905. Since the women objected to the exclusive use of the name Working Men, it was finally decided to call the organization the Workers' Educational Association. In 1906 the constitution was revised to read as follows:

Object. Its object shall be to promote the Higher Education of Working Men and Women.

Methods. It shall, in its capacity as a co-ordinating Federation of Working-Class and Educational Interests, endeavor to fulfil its object in the following principal ways:

- (a) By *arousing* the interest of the workers in Higher Education, and by directing their attention to the facilities already existing.
- (b) By *inquiring* into the needs and feelings of the workers in regard to Education, and by representing them to the Board of Education, Universities, Local Education Authorities, and Educational Institutions.
- (c) By *providing*, either in conjunction with the aforementioned bodies or otherwise, facilities for studies of interest to the workers which may have hitherto been overlooked.
- (d) By *publishing*, or arranging for the publication, of such reports, pamphlets, books and magazines as it deems necessary.

It should be said that while this movement for workers' education was going on the Fabian Society had been distributing from 1891 to 1911 thousands of social and economic fact-pamphlets. These tracts were written for the working class and it is difficult to estimate the influence they exerted throughout England.

After the start of this movement it was thought that it could be linked up with the universities. Mr. R. H. Tawney, who was lecturing in Economics in Glasgow, was secured to teach one such class. The Workers' Education

Association, although at first it had tried to rest complete control in the trade unions, finally under university influence revised this ideal. The Association to-day is an organization not only of trade unions but of individual members and educational organizations. Its unit is a branch composed of adult schools, cooperative societies, working-men's clubs, adult organizations, trade unions, and individuals. Branches join together in districts, and the districts are represented in a central council which is the national board of the Association. The Workers' Education Association thus includes the trade unions, the coöperatives, the educational committee of the National Adult School Union, the workingmen's clubs, the Institute Union, the Y. M. C. A., universities, and other educational bodies. While the trade unions probably outnumber any other single group, they are in the minority.

Because of the minority control by trade unions there was some dissatisfaction on the part of the workers. In 1909 a student strike occurred at Ruskin College and the majority of the students seceded to form a strictly trade union college. Although the strike itself turned on the question of the dismissal of the principal of the school by the governing board, the underlying reasons for dissatisfaction were deeper than this. The students objected to the economic doctrines which were taught. They felt that the teachers were giving them mere theory and knew nothing about the labor movement. As a result of the strike the students voted (46 to 7) to ask the trade unions and socialist bodies for \$25,000 to open a college for working men entirely controlled by the labor movement. Those who seceded were supported by 90 per cent. of the alumni of Ruskin College and by such trade unionists as Robert Smillie of the miners.

The Labor College is situated in London and has a smaller number of resident students than Ruskin. However, the lecture courses which are given throughout Great Britain, together with the correspondence courses, reach about 7,000 a year. The *London Times* of October 7, 1919, testified to the influence of the labor college as follows:

"The influential men (in strikes) are not even Bolshevists. They are middle-class intellectuals and workmen who have been through one or other of the labor colleges, where they have imbibed theories about the social and industrial order which seem to them perfectly true and wise because they do not know enough to detect the fallacies. These men, who are young, are most numerous among the railwaymen and miners, and this is the chief reason why these industries are the special, though not the only, hot-beds of disorder."

There is a real difference between the Workers' Education Association and the Labor College. The former tries to be definitely non-partizan. It

wishes to avoid being used for immediate economic purposes. On the other hand, the Labor College is not neutral. Its purpose is to train the workers so that they will be equipped with educational tools and weapons for their work as destroyers of the foundation of Capitalism and as builders of a new order. As the Plebs League states, its object is "to further the interests of independent working class education in a partizan effort to improve the conditions of labor in the present and to aid in the abolition of wage slavery." The League is the organization of students and others who believe in the college.

Since 1920 the Workers' Education Association has permitted a new type of control known as the Workers' Education Trade Union Committee, of which a member of the Trade Union is chairman. The Workers' Education Association District Secretary is the organizer and the trade unions are in majority control. The chairman of this Workers' Education Trade Union Committee has stated: "There unquestionably exists in the minds of working men and women a strong suspicion of the bias of . . . University . . . teaching in social and industrial subjects. This suspicion is undoubtedly well founded. . . . To ask trade unions to avail themselves of the ordinary educational facilities provided by universities . . . is . . . impracticable. . . . They desire to build up their own educational movement, to work out their own salvation in the field of thought, as they are endeavoring to do in the world of action."

The Workers' Education movement in England is, as we have noted, firmly established. At the present time there are approximately 100,000 in attendance each year at classes under the auspices of the Workers' Education Association or some other agency engaged in workers' education. The trade union education inquiry found that the following subjects were being taught: Trade Union History and Problems, Coöperative History and Problems, Industrial History, Political History, History of Social Movements, Problems of Reconstruction, Industrial Administration, Local Government, Economic Theory, Political Theory, International Problems, Psychology, Biology, Social Psychology, Sociology, Philosophy, Literature, Music, Art.

The movement in the United States has been more backward than in England. To be sure, as early as 1828 a working men's party was organized in the United States, with free public education as one of the chief issues. Margaret Hodgen, author of *Workers' Education in England and the United States*, says that this party became the chief instrument of the founding of the American public school system. However, it did not really start adult workers' education classes. The American Federation of Labor

has always advocated education and considered the public school system as part of labor's achievement. It did not recognize the needs of having labor represented on the boards, so that in 1918 only six state boards of education contained labor members and in 204 cities with a population of 40,000 only seventeen boards of education contained representatives of labor. A study by Professor Counts of Yale University in 1925 showed that the proportion was no higher at that time. In 1903 the Woman's Trade Union League was organized. It found considerable difficulty in securing trade union membership among the women and decided it needed better organizers. This in turn demanded education. Consequently in 1907, at the first convention, a recommendation was made that each local establish classes for the discussion of the class struggle. In 1911, the New York League prepared pamphlets on the structure of trade unions and the history of the labor movement. In 1914, a school for organizers was opened in Chicago.

At the present time workers' education in the United States is carried on largely by four groups: trade unions, Socialists, Communists, and the universities

The Ladies' Garment Workers were the pioneers in workers' education in the United States. In 1914 they appropriated \$1,500 for this work. In 1915 one of their locals in New York City organized its educational activity under the name of Unity Center. In 1916, \$5,000 was appropriated for this educational work. At the present time they conduct a workers' university in Washington Irving High School, New York City. There are also other "unity centers" in public school buildings in different parts of the city. Lectures are given and classes held on the Labor Movement, the trade union, and economics, as well as on cultural subjects.

The Amalgamated Clothing Workers have also taken a leading part in workers' education. They have established schools in six cities and have a national education department with an educational director in charge. A number of cities have also established trade union colleges. Boston is perhaps as well known as any, having established one in 1921. It is, of course, controlled entirely by organized labor but secures some teachers from neighboring universities. The leading organizer outside the trade union ranks is H. W. L. Dana of Cambridge, a grandson of the poet, Longfellow. The college started with 146 students but has increased its enrolment until now there are about 400 in attendance. Similar trade union colleges have been started in Washington, Passaic, Philadelphia, Denver, and elsewhere.

The first resident labor college in America, the Brookwood Labor

College, was started in Katonah, N. Y., in 1921. It provides for a two-year course. The college buildings are located on fifty acres of ground, which are rented to the school for one dollar a year. The school itself is run jointly by the faculty, administration, and students. While this college was at first run in close affiliation with the American Federation of Labor, in 1929—largely through the influence of Mr. Woll, Vice-President of the American Federation of Labor—this relationship was severed. The American Federation of Labor attacked Brookwood for being radical but did not give the school authorities any opportunity to present their side of the case. Because of this action the American Federation of Labor was widely criticized by such men as Professors John Dewey of Columbia and Paul Douglas of Chicago.

An interesting experiment has been made by the unions in New Haven, Conn., where a forum for the workers is held at the time of their regular trade union meeting. Speakers are selected approximately a year in advance and printed programs are prepared. This plan has been quite successful in stimulating the interest of workers who could not be induced to follow regular class room work.

In 1906 the Socialists, stimulated by the success of Ruskin College in Oxford, established in New York City the Rand School of Social Science. It has been highly successful, although in 1928 and 1929 its attendance fell because of the competition of the Communists.

The Communists have trained organizers for the workers' party by establishing schools and classes in nearly every city in which they have headquarters. These classes are frankly propagandistic. A number of universities in the United States have also started classes for workers. Until the discharge of President Meiklejohn of Amherst, workers' classes were kept up in Springfield and Holyoke by Amherst professors. In California, university extension work among laboring men has been carried on with effective results.

In 1920, President Thomas of Bryn Mawr proposed that the college buildings should be used during the summer for educational opportunities for women workers. Such a summer school was opened in the summer of 1927, attendance being restricted to women working with the tools of their trade and not in a supervisory capacity. In the first summer school there were 82 students of 12 nationalities, coming from 19 different states and representing 19 different trades.

In spite of all that has been done in America, the work is relatively insignificant. It is possible that if one counted attendance at educational forums, the total figures would be large for the year. Even so, the total is

but a small proportion of the number of organized workers. In the entire country it is safe to say that not one out of thirty workers is touched by educational activity. Formal educational class work has attracted less than 1 per cent. of the workers. Doubtless one reason for this is the lack of a class-conscious spirit in American labor and the feeling that every worker has a chance to rise. There is also, no doubt, a conviction on the part of many that adult education is of small value in their trade. Furthermore, a great many employers are bitterly opposed to any form of class-conscious education for the workers. In 1920 a Workers' Education Bureau was founded which had its inspiration from the Workers' Education Association in England. Although at first it was controlled by both the trade unions and the labor colleges jointly, control passed in 1929 very definitely into the hands of the International Trade Unions and the American Federation of Labor. Something of the spirit of the organization can be sensed from the following extracts from the address of President James H. Maurer in 1927:

"Workers' Education must require above all else thorough, scientific and open-minded discussions of all theories and doctrines. In its broadest sense, Workers' Education cannot confine itself merely to classes, or to the bringing in of reports on books, but embraces every phase of culture and the study of every part of our social structure. No dogma, whether it comes from the employing class, labor, or radical groups, must be sacred to Labor Education. Instead, it must seek light and understanding everywhere in order that the individual may for himself or herself determine the ways of truth and proper guidance. It must never approach any issue in a partisan or biased manner.

"But to be effective labor education must be inspired by a Labor conscience and must be based on the definite assumption that Labor will some day occupy the position of power that rightfully belongs to it, and that meanwhile, Labor can contribute generously toward building a better and finer social order both nationally and internationally. The prejudiced and ignorant education frequently accepted by industrialists, as evidenced by their official publications and luncheon club orators, must under no conditions be countenanced in our work. As an example of what Workers' Education is not and must not be, I quote a recent article in a prominent manufacturers' journal in which a member of the New York bar learnedly declares that: 'Socialism and Communism seek the same end by different routes; that both advocate the abolition (1) of inheritance, (2) of private property, (3) of marriage, (4) of religion, (5) of the home, and (6) of our Christian Civilization.' Such nonsense, which apparently suits the tastes of some industrial leaders, can never be swallowed by workers, who through labor education insist upon seeing all facts and all issues involved. The individual student, while he should be trained to develop to the highest capacity his own mind and body, must principally be trained in an understanding of the complex economic and social problems, and must be trained to look at these in terms of the common welfare rather than from

his own narrow and personal point of view. It is because such education is but rarely provided by the existing public and private educational institutions that labor must through its own efforts and organizations seek to provide this education itself. . . .

"Although only six years of age, the Workers' Education Bureau of America is quite a healthy and vigorous youngster for its age. Affiliated with us now are 353 Local Unions, 68 Central Trade Unions, 21 State Federations, 52 International Unions, and Study Classes in nearly every corner of the United States. Besides we have hundreds of sustaining and contributing members at large."

In spite of the reasonably fair attitude shown above, many conservatives in our country oppose all organized labor. In 1921 the Lusk committee of the New York Legislature classified trade union activity as seditious and un-American. Business men are glad if workers are trained to be more effective producers but they do not want them trained to assume leadership in the trade union movement. It seems probable that as the trade union movement becomes more progressive and enlightened the amount of money appropriated for workers' education will materially increase. In the United States the most significant result of workers' education belongs to the future.

II. LEADERSHIP

I. JAMES RAMSAY MACDONALD

Socialist-Labor Party Member and Premier of England

Sixty-three years ago Ramsay MacDonald was born at Lossiemouth, a fishing village by the Moray Firth. His first home was a two-roomed "but and ben"; his first job, lifting potatoes in the field. But for one of those queer turns that life so often takes, the world might easily have lost a Prime Minister and gained a good fisherman—for at twelve he nearly went to sea, as was the custom for all the boys of Moray Firth. But somehow the local Scotch minister stepped in with an offer of further education. From that old minister the boy secured the foundation of that wide knowledge which has helped to make him such a force in the affairs of his day and generation. He was brought to the school as a pupil teacher. He devoted himself to his studies and passed examinations in subjects which he felt would help towards a career in science.

At eighteen, Ramsay MacDonald set out for London with enough in his pocket to pay the fare and just a few shillings over. Work of some kind was at once imperative. He began with envelope addressing; next he got a post of invoice clerk at the meager wage of three dollars per week.

His nights he spent at evening classes, reading and taking correspondence courses, all aimed at the scientific career he had mapped out for himself when studying in far-away Lossiemouth under his old dominie. Then at the last moment a bad breakdown prevented him taking the science scholarship at South Kensington, on which he had set his heart. He had not been sufficiently careful of his health.

The result was that he was drawn towards the political arena, where his life work was to be centered. As a mere youth he had already had his baptism of fire, working for the Radical candidate in his native constituency. For a time in London he was private secretary to Mr. Thomas Lough, afterwards Radical M. P. for West Islington; but as he read and studied out his own scientific conception of Socialism he was steadily turning away from Liberalism. Nevertheless, for a time he did effective work as a journalist for the liberal press.

When he first came to London he had come in contact with the old Social-Democratic Federation. As far back as 1888 he was writing to Keir Hardie, wishing him "good luck" in the Mid-Lanark Election, where he stood as Independent Labor candidate. Finally despairing of Liberalism, in 1894 he wrote to Hardie again, placing his services at the disposal of the Independent Labor Party. A year later he stood at Southampton as one of the Independent Labor candidates, polling 866 votes.

Just after the election he met Margaret Ethel Gladstone, niece of Lord Kelvin and daughter of a distinguished chemist, the successor of Professor Faraday at the Royal Institution. Twelve months later they were married, and there followed fifteen years of constant companionship and service in the Socialist and Labor Movement. Their home in Lincoln's Inn Fields became the center of a circle of men and women, of all classes and from all lands, who were giving their lives to the cause of progress.

During this period MacDonald became a member of the London County Council, and at the Khaki Election of 1900 stood for the first time for Leicester, which in after years was to be inseparably connected with his name.

These were the stirring days when the Labor Party was emerging as an active fighting force. MacDonald, as its first secretary, tirelessly set himself to the task of creating a machine that would stand the test of time. The strength and capacity of the modern labor movement owes very much to the foundations which he laid in those early days. If Keir Hardie was the prophet and evangel of labor, Ramsay MacDonald, whom Keir Hardie called its "greatest intellectual asset," was its first organizing genius.

In 1906, Leicester returned him for the first time, and then began that

active parliamentary life which eventually led to the premiership. All this time he was writing, speaking, organizing. Controversy loud and fierce has raged round his theories, but there will be no one to deny that he has steadily and consistently applied them.

The year 1911 was heavy with sorrow. In the early part of the year Ramsay lost not only his wife, but his mother and little boy David.⁷ Fortunately, he was able to steep himself in work. From 1911 to 1914 he was Leader of the Parliamentary Labor Party, succeeding Keir Hardie. They were years of difficulty and stress. Nevertheless, although the Labor Party was comparatively small in numbers, it had an immense driving force and was able to compel the Liberal Government to adopt progressive measures very alien to its own traditions and inclinations.

Meanwhile the Liberal Imperialists were shaping the course of foreign policy towards inevitable disaster. Unknown to the people, unknown to Parliament, unknown even to some members of the Cabinet, secret treaties and understandings were being formulated which committed Great Britain to participation in a Continental war. In 1914 the storm broke.

Throughout, Ramsay MacDonald had warned the country against the drift of Sir Edward Grey's foreign policy. When the crisis came he declined to support a military program. On August 4, 1914, in a House of Commons already in the grip of war passion, he rose and told the Foreign Secretary that the verdict of history would be that his policy was wrong.

The War sent Mr. MacDonald into the wilderness. For a long period he was the most hated man in the country. In 1918 he lost his seat at Leicester, and it was not till the General Election of 1922 that he came back to the House of Commons.

Within a few weeks after his reelection the tables were completely turned. He became once more the leader of labor in the country. Then came 1923, with its culminating triumph, and Ramsay MacDonald became Britain's first Labor Prime Minister and its best Foreign Secretary of modern times. At the end of 1924 his Government was defeated by a combination of Tories and Liberals, but in 1929, as labor's chosen leader, he became Premier for the second time.

Among the books he has written are: *Socialism and Society* (1905), *The Awakening of India* (1910), *The Socialist Movement* (1911), *Margaret Ethel MacDonald* (1910), *National Defence* (1917), *The Government of India* (1919), *Parliament and Revolution* (1920), *Parliament*

⁷ To their five children, Ramsay MacDonald has since been both father and mother. Allister, the oldest, is now on his way to be a distinguished architect; Malcolm is on the London County Council and Labor Member of Parliament, Ishbel, who is hostess at 10 Downing Street (the White House of England), is also on the London County Council.

and Democracy (1920), *A Policy for the Labor Party* (1920), *Socialism, Critical and Constructive* (1921). Most of these books have been translated into many European languages.

He has often seen conditions at first hand in Europe, South Africa, India, Australia, New Zealand, and the United States. He knows intimately the men in power in many of these countries.

His unique personality and capabilities are due to his native equipment, to the environment into which he was thrown, and to the fact that, with a favorable combination of factors, he has apparently always applied himself with all his powers to the task at hand.⁸

2. ARTHUR HENDERSON

"Uncle Arthur," as he is affectionately known throughout the Labor Movement, is actually the senior member of the party, since he was first returned to the House of Commons for Barnard Castle at a by-election in 1905. He is also the one member who has had previous Cabinet experience.

Though born in Glasgow in 1863, he is by long association a Northumbrian. He served his apprenticeship as a molder at Newcastle, and Northumberland was really his home county until he settled in London some ten years ago. An active member of the Ironfounders' Union, it was, however, not so much his Trade Unionism as his strong religious faith that brought him into active politics, at first as a Liberal. He early became known as a Wesleyan lay preacher and is still in power in the Brotherhood Movement, succeeding Dr. Clifford as President of the Council from 1914-19. After a wide experience of responsible positions in local government, he soon made his mark in the House. In 1914, when Mr. MacDonald resigned on the War issue, he became Leader of the Parliamentary Labor Party, and was given office in 1915 as President of the Board of Education by the first Asquithian Coalition. When Mr. Lloyd George came in, he made Mr. Henderson a member of the War Cabinet; and in that capacity he went on his famous Mission to Russia in 1917. What he saw there convinced him of the importance of the Stockholm Conference project; when passports were refused to the British delegates, he resigned.

From that time on he devoted his remarkable organizing energy to the task of making the Labor Party an effective instrument for hastening the end of the War by a democratic peace: 1917 was, in fact, the turning-point in labor's war psychology. The Secret Treaty revelations helped in the work Mr. Henderson's resignation had begun, and the tide of feeling began to flow towards peace. In this he assisted notably.

⁸For part of this sketch we are indebted to an article in the *New Leader*, London.

The new constitution of the party, accepted in June, 1918, opened its ranks to workers by "hand and brain"; since then it has received a stream of men and women from all classes. For this, Mr. Henderson was largely responsible; here and in the reconstruction and extension of the organization and machinery of the party, he was completing the work that Keir Hardie and Ramsay MacDonald had planned and begun. In the first Labor Government he served as Home Secretary but to-day has charge of Foreign Affairs, perhaps the most important position in the Cabinet next to that of the Premier.

3. J. H. THOMAS

J. H. Thomas was born in Newport, October 31, 1875. He was educated in the Council Schools. Few who have heard, none who have encountered him at conferences—whether mass conferences of irate delegates, or round-table meetings where vital issues may be determined by a casual word—will deny his amazing cleverness, his extraordinary grip on the business in hand, or the force of his personality. At nine years of age he was already at work as an errand-boy. He soon secured a position as an engine cleaner and was then promoted by rapid stages to foreman and finally engine-driver. No one can question the ability of a man who, starting life as an errand-boy at nine, was a driver of an express before he was out of his twenties, and, in his forties, twice refused Cabinet office. Certainly those who have found him too clever for them and who, consequently, view his "Welshness" as the predominant trait in his character, say hard things of him. There is a section of his own party which can never forgive him for having said, at the time of his libel action against *The Communist*, that he was not a Socialist. That he voted for the Socialist resolution in the House last year, and took the trouble to be there, hardly reconciles them. These critics are not numerous in the House of Commons. There, the Left Wingers, who had previously said the harshest things about him, were conquered, as those who come up against him generally are, by the skill, geniality, vigor and good sportsmanship with which he conducted them through the all-night sitting on the Army Annual Bill. They realized then, what thousands of railwaymen have known for years, that "Jimmy" knows how to lead men and how to make them enthusiastic. There is, further, something sunny, something humorous about him; he is not ruffled by the hard things that are said. He may be vain; but if so, his vanity (for which there are very good grounds) is of the safe sort that is rooted, not in what other people think of him, but in what he thinks of himself.

He has always been recognized as a brilliant chairman—quick, fair, superlatively intelligent—and has shown this in presiding over Trades

Union Conferences both at home and abroad. He is President of the Trades Union International—the “Yellow” international of Amsterdam, which the Bolsheviks oppose. Employers and business men, who began by thinking that they could “score off” a professionless Trade Unionist, soon learned their mistake. A much more substantial offset to any little foibles, with which he may be affected, is his loyalty. He did not agree with MacDonald about the war. He was a member of the Munitions Mission to the United States in 1917, and though he refused Cabinet office, was a great recruiting sergeant; yet in the 1918 election he was one of the “majority” Labor leaders who went down to speak for MacDonald at Leicester. He was likewise one of the small band who fought conscription in the House through all its stages. He was President and Chairman of the Parliamentary Committee of the Trades Union Congress for 1920-1921. In 1924 he was Secretary of State for the Colonies. He was given an honorary LL.D. by Cambridge in 1920 and an honorary D.C.L. by Oxford in 1926. He is the author of *When Labor Rules* published in 1920.

Brains, energy, courage—J. H. Thomas has all these, as well as a human likability few can resist. And when he said that the question for a Labor man in relation to government was not what he could get but what he could give, it was not merely a phrase. Of him it is certainly true.

III. THEORY

One of the most effective statements of party policy ever prepared is the one used by labor in England following the World War. It is called “Labor and the New Social Order.” The student should note carefully the differences between this document and the platform of 1929. Each reflects to some extent the state of mind of labor at the time.

I. LABOR AND THE NEW SOCIAL ORDER

It behooves the Labor Party, in formulating its own program for Reconstruction after the war, and in criticizing the various preparations and plans that are being made by the present Government, to look at the problem as a whole. We have to make it clear what it is that we wish to construct. It is important to emphasize the fact that, whatever may be the case with regard to other political parties, our detailed practical proposals proceed from definitely held principles.

The End of a Civilization

We need to beware of patchwork. The view of the Labor Party is that what has to be reconstructed after the war is not this or that

Government Department, or this or that piece of social machinery; but, so far as Britain is concerned, society itself. The individual worker, or for that matter the individual statesman, immersed in daily routine—like the individual soldier in a battle—easily fails to understand the magnitude and far-reaching importance of what is taking place around him. How does it fit together as a whole? How does it look from a distance? Count Okuma, one of the oldest, most experienced and ablest of the statesmen of Japan, watching the present conflict from the other side of the globe, declares it to be nothing less than the death of European civilization. Just as in the past the civilizations of Babylon, Egypt, Greece, Carthage, and the great Roman Empire have been successively destroyed, so, in the judgment of this detached observer, the civilization of all Europe is even now receiving its death-blow. We of the Labor Party can so far agree in this estimate as to recognize, in the present world catastrophe, if not the death, in Europe, of civilization itself, at any rate the culmination and collapse of a distinctive industrial civilization, which the workers will not seek to reconstruct. At such times of crisis it is easier to slip into ruin than to progress into higher forms of organization. That is the problem as it presents itself to the Labor Party to-day.

What this war is consuming is not merely the security, the homes, the livelihood and the lives of millions of innocent families, and an enormous proportion of all the accumulated wealth of the world, but also the very basis of the peculiar social order in which it has arisen. The individualist system of capitalist production, based on the private ownership and competitive administration of land and capital, with its reckless "profiteering" and wage-slavery; with its glorification of the unhampered struggle for the means of life and its hypocritical pretence of the "survival of the fittest"; with the monstrous inequality of circumstances which it produces and the degradation and brutalization, both moral and spiritual, resulting therefrom, may, we hope, indeed have received a death-blow. With it must go the political system and ideas in which it naturally found expression. We of the Labor Party, whether in opposition or in due time called upon to form an Administration, will certainly lend no hand to its revival. On the contrary, we shall do our utmost to see that it is buried with the millions whom it has done to death. If we in Britain are to escape from the decay of civilization itself, which the Japanese statesman foresees, we must ensure that what is presently to be built up is a new social order, based not on fighting, but on fraternity—not on the competitive struggle for the means of bare life, but on a deliberately planned coöperation in production and distribution for the benefit of all who participate by hand or by brain—not on the utmost possible inequality of riches, but on a systematic approach towards a healthy equality of material circumstances for every person born into the world—not on an enforced dominion over subject nations, subject races, subject Colonies, sub-

ject classes or a subject sex, but, in industry as well as in government, on that equal freedom, that general consciousness of consent, and that widest possible participation in power, both economic and political, which is characteristic of Democracy. We do not, of course pretend that it is possible, even after the drastic clearing away that is now going on, to build society anew in a year or two of feverish "Reconstruction." What the Labor Party intends to satisfy itself about is that each brick that it helps to lay shall go to erect the structure that it intends, and no other.

The Pillars of the House

We need not here recapitulate, one by one, the different items in the Labor Party's program, which successive Party Conferences have adopted. These proposals, some of them in various publications worked out in practical detail, are often carelessly derided as impracticable, even by the politicians who steal them piecemeal from us! The members of the Labor Party, themselves actually working by hand or by brain, in close contact with the facts, have perhaps at all times a more accurate appreciation of what is practicable, in industry as in politics, than those who depend solely on academic instruction or are biased by great possessions. But to-day no man dares to say that anything is impracticable. The war, which has scared the old Political Parties right out of their dogmas, has taught every statesman and every Governmental official, to his enduring surprise, how very much more can be done along the lines that we have laid down than he had ever before thought possible. What we now promulgate as our policy, whether for opposition or for office, is not merely this or that specific reform, but a deliberately thought-out, systematic, and comprehensive plan for that immediate social rebuilding which any Ministry, whether or not it desires to grapple with the problem, will be driven to undertake. The Four Pillars of the House that we propose to erect, resting upon the common foundation of the Democratic control of society in all its activities, may be termed, respectively:

- (a) The Universal Enforcement of the National Minimum;
- (b) The Democratic Control of Industry;
- (c) The Revolution in National Finance; and
- (d) The Surplus Wealth for the Common Good.

The various detailed proposals of the Labor Party, herein briefly summarized, rest on these four pillars, and can best be appreciated in connection with them.

The Universal Enforcement of a National Minimum

The first principle of the Labor Party—in significant contrast with those of the Capitalist System, whether expressed by the Liberal or by

the Conservative Party—is the securing to every member of the community, in good times and bad alike (and not only to the strong and able, the well-born or the fortunate), of all the requisites of healthy life and worthy citizenship. This is in no sense a “class” proposal. Such an amount of social protection of the individual, however poor and lowly, from birth to death is, as the economist now knows, as indispensable to fruitful coöperation as it is to successful combinations; and it affords the only complete safeguard against that insidious Degradation of the Standard of Life, which is the worst economic and social calamity to which any community can be subjected. We are members one of another. No man liveth to himself alone. If any, even the humblest is made to suffer, the whole community and every one of us, whether or not we recognize the fact, is thereby injured. Generation after generation this has been the corner-stone of the faith of Labor. It will be the guiding principle of any Labor Government.

THE LEGISLATIVE REGULATION OF EMPLOYMENT.—Thus it is that the Labor Party to-day stands for the universal application of the Policy of the National Minimum, to which (as embodied in the successive elaborations of the Factory, Mines, Railways, Shops, Merchant Shipping, and Truck Acts, the Public Health, Housing, and Education Acts and the minimum Wage Act—all of them aiming at the enforcement of at least the prescribed Minimum of Leisure, Health, Education, and Subsistence) the spokesmen of Labor have already gained the support of the enlightened statesmen and economists of the world. All these laws purporting to protect against extreme Degradation of the Standard of Life need considerable improvement and extension, whilst their administration leaves much to be desired. For instance, the Workmen’s Compensation Act fails, shamefully, not merely to secure proper provision for all the victims of accident and industrial disease, but what is much more important, does not succeed in preventing their continual increase. The amendment and consolidation of the Factories and Workshop Acts, with their extension to all employed persons, is long overdue, and it will be the policy of Labor greatly to strengthen the staff of inspectors, especially by the addition of more men and women of actual experience of the workshop and the mine. The Coal Mines (Minimum Wage) Act must certainly be maintained in force, and suitably amended, so as both to ensure greater uniformity of conditions among the several districts, and to make the District Minimum in all cases an effective reality. The same policy will, in the interests of the agricultural laborers, dictate the perpetuation of the Legal Wage clauses of the new Corn Law just passed for a term of five years, and the prompt amendment of any defects that may be revealed in their working. And, in view of the fact that many millions of wage-earners, notably women and the less-skilled workmen in various occupations, are unable by combination to obtain wages adequate for decent maintenance in health, the Labor Party

intends to see that the Trade Boards Act is suitably amended and made to apply to all industrial employments in which any considerable number of those employed obtain less than 30s. per week. This minimum of not less than 30s. per week (which will need revision according to the level of prices) ought to be the very lowest statutory base line for the least skilled adult workers, men or women, in any occupation, in all parts of the United Kingdom.

THE ORGANIZATION OF DEMOBILIZATION.—But the coming industrial dislocation, which will inevitably follow the discharge from war service of half of all the working population, imposes new obligations upon the community. The demobilization and discharge of the eight million wage-earners now being paid from public funds, either for service with the colors or in munition work and other war trades, will bring to the whole wage-earning class grave peril of Unemployment, Reduction of Wages, and a Lasting Degradation of the Standard of Life, which can be prevented only by deliberate National Organization. The Labor Party has repeatedly called upon the present Government to formulate its plan, and to make in advance all arrangements necessary for coping with so unparalleled a dislocation. The policy to which the Labor Party commits itself is unhesitating and uncompromising. It is plain that regard should be had, in stopping Government orders, reducing the staff of the National Factories and demobilizing the Army, to the actual state of employment in particular industries and in different districts, so as both to release first the kinds of labor most urgently required for the revival of peace production, and to prevent any congestion of the market. It is no less imperative that suitable provision against being turned suddenly adrift without resources should be made, not only for the soldiers, but also for the three million operatives in munition work and other war trades, who will be discharged long before most of the Army can be disbanded. On this important point, which is the most urgent of all, the present Government has, we believe, down to the present hour, formulated no plan, and come to no decision, and neither the Liberal nor the Conservative Party has apparently deemed the matter worthy of agitation. Any Government which should allow the discharged soldier or munition worker to fall into the clutches of charity or the Poor Law would have to be instantly driven from office by an outburst of popular indignation. What every one of them who is not wholly disabled will look for is a situation in accordance with his capacity.

SECURING EMPLOYMENT FOR ALL.—The Labor Party insists—as no other political party has thought fit to do—that the obligation to find suitable employment in productive work for all these men and women rests upon the Government for the time being. The work of re-settling the disbanded soldiers and discharged munition workers into new situations is a national obligation; and the Labor Party emphatically protests against it being regarded as a matter for private charity. It strongly objects to this

public duty being handed over either to committees of philanthropists or benevolent societies, or to any of the military or recruiting authorities. The policy of the Labor Party in this matter is to make the utmost use of the Trade Unions, and equally for the brain workers, of the various Professional Associations. In view of the fact that, in any trade, the best organization for placing men in situations is a national Trade Union having local branches throughout the kingdom, every soldier should be allowed, if he chooses, to have a duplicate of his industrial discharge notice sent out, one month before the date fixed for his discharge, to the Secretary of the Trade Union to which he belongs or wishes to belong. Apart from this use of the Trade Union (and a corresponding use of the Professional Association) the Government must, of course, avail itself of some such public machinery as that of the Employment Exchanges; but before the existing Exchanges (which will need to be greatly extended) can receive the co-operation and support of the organized Labor Movement, without which their operations can never be fully successful, it is imperative that they should be drastically reformed, on the lines laid down in the Demobilization Report of the "Labor after the War" Joint Committee; and, in particular, that each Exchange should be placed effectively under the supervision and control of a Joint Committee of Employers and Trade Unionists in equal numbers.

The responsibility of the Government, for the time being, in the grave industrial crisis that demobilization will produce, goes, however, far beyond the eight million men and women whom the various departments will suddenly discharge from their own service. The effect of this peremptory discharge on all the other workers has also to be taken into account. To the Labor Party it will seem the supreme concern of the Government of the day to see to it that there shall be, as a result of the gigantic "General Post" which it will itself have deliberately set going, nowhere any Degradation of the Standard of Life. The Government has pledged itself to restore the Trade Union conditions and "pre-war practices" of the workshop, which the Trade Unions patriotically gave up at the direct request of the Government itself; and this solemn pledge must be fulfilled, of course, in the spirit as well as in the letter. The Labor Party, moreover, holds it to be the duty of the Government of the day to take all necessary steps to prevent the Standard Rates of Wages, in any trade or occupation whatsoever, from suffering any reduction, relatively to the contemporary cost of living. Unfortunately, the present Government, like the Liberal and Conservative Parties, so far refuses to speak on this important matter with any clear voice. We claim that it should be a cardinal point of Government policy to make it plain to every capitalist employer that any attempt to reduce the customary rate of wages when peace comes, or to take advantage of the dislocation of demobilization to worsen the conditions of employment in any grade whatsoever, will certainly lead to em-

bittered industrial strife, which will be in the highest degree detrimental to the national interests; and that the Government of the day will not hesitate to take all necessary steps to avert such a calamity. In the great impending crisis the Government of the day should not only, as the greatest employer of both brainworkers and manual workers, set a good example in this respect but should also actively seek to influence private employers by proclaiming in advance that it will not itself attempt to lower the Standard Rates of conditions in public employment; by announcing that it will insist on the most rigorous observance of the Fair Wages Clause in all public contracts, and by explicitly recommending every Local Authority to adopt the same policy.

But nothing is more dangerous to the Standard of Life, or so destructive of those minimum conditions of healthy existence, which must in the interests of the community be assured to every worker, than any widespread or continued unemployment. It has always been a fundamental principle of the Labor Party (a point on which significantly enough it has not been followed by either of the other political parties) that in a modern industrial community, it is one of the foremost obligations of the Government to find, for every willing worker, whether by hand or by brain, productive work at Standard Rates.

It is accordingly the duty of the Government to adopt a policy of deliberately and systematically preventing the occurrence of unemployment, instead of (as heretofore) letting unemployment occur, and then seeking, vainly and expensively, to relieve the unemployed. It is now known that the Government can, if it chooses, arrange the Public Works and the orders of National Departments and Local Authorities in such a way as to maintain the aggregate demand for labor in the whole kingdom (including that of capitalist employers) approximately at a uniform level from year to year; and it is therefore a primary obligation of the Government to prevent any considerable or widespread fluctuations in the total numbers employed in times of good or bad trade. But this is not all. In order to prepare for the possibility of there being any unemployment, either in the course of demobilization or in the first years of peace, it is essential that the Government should make all necessary preparations for putting instantly in hand, directly or through the Local Authorities, such urgently needed public works as (a) the rehousing of the population alike in rural districts, mining villages, and town slums, to the extent, possibly, of a million new cottages and an outlay of 300 millions sterling; (b) the immediate making good of the shortage of schools, training colleges, technical colleges, etc., and the engagement of the necessary additional teaching, clerical and administrative staffs; (c) new roads; (d) light railways; (e) the unification and reorganization of the railway and canal system; (f) afforestation; (g) the reclamation of land; (h) the development and better equipment of our ports and harbors; (i) the opening

up of access to land by cooperative small holdings and in other practicable ways. Moreover, in order to relieve any pressure of an overstocked labor market, the opportunity should be taken, if unemployment should threaten to become widespread, (a) immediately to raise the school leaving age to sixteen; (b) greatly to increase the number of scholarships and bursaries for Secondary and Higher Education; and (c) substantially to shorten the hours of labor of all young persons, even to a greater extent than the eight hours per week contemplated in the new Education Bill, in order to enable them to attend technical and other classes in the day-time. Finally, wherever practicable, the hours of adult labor should be reduced to not more than forty-eight per week, without reduction of the Standard Rates of Wages. There can be no economic or other justification for keeping any man or woman to work for long hours, or at overtime, whilst others are unemployed.

SOCIAL INSURANCE AGAINST UNEMPLOYMENT.—In so far as the Government fails to prevent Unemployment—wherever it finds it impossible to discover for any willing worker, man or woman, a suitable situation at the Standard Rate—the Labor Party holds that the Government must, in the interest of the community as a whole, provide him or her with adequate maintenance, either with such arrangements for honorable employment or with such useful training as may be found practicable, according to age, health and previous occupation. In many ways the best form of provision for those who must be unemployed, because the industrial organization of the community so far breaks down as to be temporarily unable to set them to work, is the Out of Work Benefit afforded by a well administered Trade Union. This is a special tax on the Trade Unionists themselves which they have voluntarily undertaken, but towards which they have a right to claim a public subvention—a subvention which was actually granted by Parliament (though only to the extent of a couple of shillings or so per week) under Part II. of the Insurance Act. The arbitrary withdrawal by the Government in 1915 of this statutory right of the Trade Unions was one of the least excusable of the war economies; and the Labor Party must insist on the resumption of this subvention immediately the war ceases, and on its increase to at least half the amount spent in Out of Work Benefit. The extension of State Unemployment Insurance to other occupations may afford a convenient method of providing for such of the Unemployed, especially in the case of badly paid women workers, and the less skilled men, whom it is difficult to organize in Trade Unions. But the weekly rate of the State Unemployment Benefits needs, in these days of high prices, to be considerably raised; whilst no industry ought to be compulsorily brought within its scope against the declared will of the workers concerned, and especially of their Trade Unions. In one way or another remunerative employment or honorable maintenance must be found for every willing worker, by

hand or by brain, in bad times as well as in good. It is clear that, in the twentieth century, there must be no question of driving the Unemployed to anything so obsolete and discredited as either private charity, with its haphazard and ill-considered doles, or the Poor Law, with the futilities and barbarities of its "Stone Yard," or its "Able-bodied Test Work-house." Only on the basis of a universal application of the Policy of the National Minimum, affording complete security against destitution, in sickness and health, in good times and bad alike, to every member of the community of whatever age or sex, can any worthy social order be built up.

The Democratic Control of Industry

The universal application of the Policy of the National Minimum is, of course, only the first of the Pillars of the House that the Labor Party intends to see built. What marks off this Party most distinctively from any of the other political parties is its demand for the full and genuine adoption of the principle of Democracy. The first condition of Democracy is effective personal freedom. This has suffered so many encroachments during the war that it is necessary to state with clearness that the complete removal of all the war-time restrictions on freedom of speech, freedom of publication, freedom of the press, freedom of travel and freedom of choice of place of residence and kind of employment must take place the day after Peace is declared. The Labor Party declared emphatically against any continuance of the Military Service Acts a moment longer than the imperative requirements of the war excuse. But individual freedom is of little use without complete political rights. The Labor Party sees its repeated demands largely conceded in the present Representation of the People Act, but not yet wholly satisfied. The Party stands, as heretofore, for complete Adult Suffrage, with not more than a three months' residential qualification, for effective provision for absent electors to vote, for absolutely equal rights for both sexes, for the same freedom to exercise civic rights for the "common soldier" as for the officer, for Shorter Parliaments, for the complete Abolition of the House of Lords, and for a most strenuous opposition to any new Second Chamber, whether elected or not, having in it any element of Heredity or Privilege, or of the control of the House of Commons by any party or class. But unlike the Conservative and Liberal Parties, the Labor Party insists on Democracy in industry as well as in government. It demands the progressive elimination from the control of industry of the private capitalist, individual or joint-stock; and the setting free of all who work, whether by hand or by brain, for the service of the community, and of the community only. And the Labor Party refuses absolutely to believe that the British people will permanently tolerate any reconstruction or perpetuation of the disorganization, waste and inefficiency involved in the abandonment of Brit-

ish industry to a jostling crowd of separate private employers, with their minds bent, not on the service of the community, but—by the very law of their being—only on the utmost possible profiteering. What the nation needs is undoubtedly a great bound onwards in its aggregate productivity. But this cannot be secured merely by pressing the manual workers to more strenuous toil, or even by encouraging the “Captains of Industry” to a less wasteful organization of their several enterprises on a profit-making basis. What the Labor Party looks to is a genuinely scientific reorganization of the nation’s industry, no longer deflected by individual profiteering, on the basis of the Common Ownership of the means of Production; the equitable sharing of the proceeds among all who participate in any capacity and only among these, and the adoption, in particular services and occupation, of those systems and methods of administration and control that may be found, in practice, best to promote, not profiteering, but the public interest.

IMMEDIATE NATIONALIZATION—The Labor Party stands not merely for the principle of the Common Ownership of the nation’s land, to be applied as suitable opportunities occur, but also, specifically, for the immediate Nationalization of Railways, Mines, and the production of Electrical Power. We hold that the very foundation of any successful reorganization of British Industry must necessarily be found in the provision of the utmost facilities for transport and communication, the production of power at the cheapest possible rate, and the most economical supply of both electrical energy and coal to every corner of the kingdom. Hence the Labor Party stands, unhesitatingly, for the National Ownership and administration of the Railways and Canals, and their union, along with Harbors and Roads and the Posts and Telegraphs—not to say also the great lines of steamers which could at once be owned, if not immediately directly managed in detail, by the Government—in a united national service of Communication and Transport; to be worked, unhampered by capitalist, private or purely local interests (and with a steadily increasing participation of the organized workers in the management, both central and local), exclusively for the common good. If any Government should be so misguided as to propose, when peace comes, to hand the railways back to the shareholders; or should show itself so spendthrift of the nation’s property as to give these shareholders any enlarged franchise by presenting them with the economies of unification or the profits of increased railway rates; or so extravagant as to bestow public funds on the re-equipment of privately owned lines—all of which things are now being privately intrigued for by the railway interests—the Labor Party will offer any such project the most strenuous opposition. The railways and canals, like the roads, must henceforth belong to the public, and to the public alone.

In the production of Electricity, for cheap Power, Light and Heating, this country has so far failed, because of hampering private interests, to

take advantage of science. Even in the largest cities we still "peddle" our Electricity on a contemptibly small scale. What is called for, immediately after the war, is the erection of a score of gigantic "super-power stations," which could generate, at incredibly cheap rates, enough electricity for the use of every industrial establishment and every private household in Great Britain; the present municipal and joint-stock electrical plants being universally linked up and used for local distribution. This is inevitably the future of Electricity. It is plain that so great and so powerful an enterprise, affecting every industrial enterprise and, eventually every household, must not be allowed to pass into the hands of private capitalists. They are already pressing the Government for the concession, and neither the Liberal nor the Conservative Party has yet made up its mind to a refusal of such a new endowment of profiteering in what will presently be the lifeblood of modern productive industry. The Labor Party demands that the production of Electricity on the necessary gigantic scale shall be made, from the start (with suitable arrangements for municipal coöperation in local distribution), a national enterprise, to be worked exclusively with the object of supplying the whole kingdom with the cheapest possible Power, Light, and Heat.

But with the Railways and the generation of Electricity in the hands of the public, it would be criminal folly to leave to the present 1,500 colliery companies the power of "holding up" the coal supply. These are now all working under public control, on terms that virtually afford to their shareholders a statutory guarantee of their swollen incomes. The Labor Party demands the immediate Nationalization of Mines, the extraction of coal and iron being worked as a public service (with a steadily increasing participation in the management, both central and local, of the various grades of persons employed), and the whole business of the retail distribution of household coal being undertaken, as a local public service, by the elected Municipal or County Councils. And there is no reason why coal should fluctuate in price any more than railway fares, or why the consumer should be made to pay more in winter than in summer, or in one town than another. What the Labor Party would aim at is, for household coal of standard quality, a fixed and uniform price for the whole kingdom, payable by rich and poor alike, as unalterable as the penny postage stamp.

But the sphere of immediate Nationalization is not restricted to these great industries. We shall never succeed in putting the gigantic system of Health Insurance on a proper footing, or secure a clear field for the beneficent work of the Friendly Societies, or gain a free hand for the necessary development of the urgently called for Ministry of Health and the Local Public Health Service, until the nation expropriates the profit-making Industrial Insurance Companies, which now so tyrannously exploit the people with their wasteful house-to-house Industrial Life As-

- surance. Only by such an expropriation of Life Assurance Companies can we secure the universal provision, free from the burdensome toil of weekly pence, of the indispensable Funeral Benefit. Nor is it in any sense a "class" measure. Only by the assumption by a State Department of the whole business of Life Assurance can the millions of policy holders of all classes be completely protected against the possibly calamitous results of the depreciation of securities and suspension of bonuses which the war is causing. Only by this means can the great staff of insurance agents find their proper place as Civil Servants, with equitable conditions of employment, compensation for any disturbance and security of tenure, in a nationally organized public service for the discharge of the steadily increasing functions of the Government in Vital Statistics and Social Insurance.

In quite another sphere the Labor Party sees the key to Temperance Reform in taking the entire manufacture and retailing of alcoholic drink out of the hands of those who find profit in promoting the utmost possible consumption. This is essentially a case in which the people, as a whole, must assert its right to full and unfettered power for dealing with the licensing question in accordance with local opinion. For this purpose, localities should have conferred upon them facilities

(a) To prohibit the sale of liquor within their boundaries;

(b) To reduce the number of licenses and regulate the conditions under which they may be held; and

(c) If a locality decides that licenses are to be granted, to determine whether such licenses shall be under private or any form of public control.

MUNICIPALIZATION.—Other main industries, especially those now becoming monopolized, should be nationalized as opportunity offers. Moreover, the Labor Party holds that the Municipalities should not confine their activities to the necessarily costly services of Education, Sanitation and Police; nor yet rest content with acquiring control of the local Water, Gas, Electricity, and Tramways; but that every facility should be afforded to them to acquire (easily, quickly and cheaply) all the land they require, and to extend their enterprises in Housing and Town Planning, Parks, and Public Libraries, the provision of music and the organization of recreation; and also to undertake, besides the retailing of coal, other services of common utility, particularly the local supply of milk, wherever this is not already fully and satisfactorily organized by a Co-operative Society.

CONTROL OF CAPITALIST INDUSTRY.—Meanwhile, however, we ought not to throw away the valuable experience now gained by the Government in its assumption of the importation of wheat, wool, metals, and other commodities, and in its control of the shipping, woollen, leather, clothing, boot and shoe, milling, baking, butchering, and other industries. The Labor Party holds that, whatever may have been the shortcomings of

this Government importation and control, it has demonstrably prevented a lot of "profiteering." Nor can it end immediately on the Declaration of Peace. The people will be extremely foolish if they ever allow their indispensable industries to slip back into the unfettered control of private capitalists, who are, actually at the instance of the Government itself, now rapidly combining, trade by trade, into monopolist Trusts, which may presently become as ruthless in their extortion as the worst American examples. Standing as it does for the Democratic Control of Industry, the Labor Party would think twice before it sanctioned any abandonment of the present profitable centralization of purchase of raw materials; of the present carefully organized "rationing," by joint committees of the trades concerned, of the several establishments with the materials they require; of the present elaborate system of "costing" and public audit of manufacturers' accounts, so as to stop the waste heretofore caused by the mechanical inefficiency of the more backward firms; of the present salutary publicity of manufacturing processes and expenses thereby ensured; and, on the information thus obtained (in order never again to revert to the old-time profiteering) of the present rigid fixing, for standardized products, of maximum prices at the factory, at the warehouse of the wholesale trader and in the retail shop. This question of the retail prices of household commodities is emphatically the most practical of all political issues to the woman elector. The male politicians have too long neglected the grievances of the small household, which is the prey of every profiteering combination; and neither the Liberal nor the Conservative party promises, in this respect, any amendment. This, too, is in no sense a "class" measure. It is, so the Labor Party holds, just as much the function of Government, and just as necessary a part of the Democratic Regulation of Industry, to safeguard the interests of the community as a whole, and those of all grades and sections of private consumers, in the matter of prices, as it is, by the Factory and Trade Boards Acts, to protect the rights of the wage-earning producers in the matter of wages, hours of labor, and sanitation.

A Revolution in National Finance

In taxation, also, the interests of the professional and housekeeping classes are at one with those of the manual workers. Too long has our National Finance been regulated, contrary to the teaching of Political Economy, according to the wishes of the possessing classes and the profits of the financiers. The colossal expenditure involved in the present war (of which, against the protest of the Labor Party, only a quarter has been raised by taxation, whilst three-quarters have been borrowed at onerous rates of interest, to be a burden on the nation's future) brings things to a crisis. When peace comes, capital will be needed for all sorts

of social enterprises, and the resources of Government will necessarily have to be vastly greater than they were before the war. Meanwhile innumerable new private fortunes are being heaped up by those who take advantage of the nation's need; and the one-tenth of the population which owns nine-tenths of the riches of the United Kingdom, far from being made poorer, will find itself, in the aggregate, as a result of the war, drawing in rent and interest and dividends a larger nominal income than ever before. Such a position demands a revolution in national finance. How are we to discharge a public debt that may well reach the almost incredible figure of 7,000 million pounds sterling, and at the same time raise an annual revenue which, for local as well as central government, must probably reach 1,000 millions a year? It is over this burden of taxation that the political parties will be found to be most sharply divided.

The Labor Party stands for such a system of taxation as will yield all the necessary revenue to the Government without encroaching on the Prescribed National Minimum Standard of Life of any family whatsoever; without hampering production or discouraging any useful personal effort, and with the nearest possible approximation to equality of sacrifice. We definitely repudiate all proposals for a Protective Tariff, in whatever specious guise they may be cloaked, as a device for burdening the consumer with unnecessarily enhanced prices, to the profit of the capitalist employer or landed proprietor, who avowedly expects his profits or rent to be increased thereby. We shall strenuously oppose any taxation, of whatever kind, which would increase the price of food or of any other necessary of life. We hold that indirect taxation on commodities, whether by Customs or Excise, should be strictly limited to luxuries; and concentrated principally on those of which it is socially desirable that the consumption should be actually discouraged. We are at one with the manufacturer, the farmer and the trader in objecting to taxes interfering with production or commerce, or hampering transport and communications. In all these matters—once more in contrast with the other political parties, and by no means in the interests of the wage-earners alone—the Labor Party demands that the very definite teachings of economic science should no longer be disregarded.

For the raising of the greater part of the revenue now required the Labor Party looks to the direct taxation of the incomes above the necessary cost of family maintenance; and for the requisite effort to pay off the National Debt, to the direct taxation of private fortunes both during life and at death. The Income Tax and Super-tax ought at once to be thoroughly reformed in assessment and collection, in abatements and allowances, and in graduation and differentiation, so as to levy the required total sum in such a way as to make the real sacrifice of all the taxpayers as nearly as possible equal. This would involve assessment by families instead of by individual persons, so that the burden is alleviated in pro-

portion to the number of persons to be maintained. It would involve the raising of the present unduly low minimum income assessable to the tax, and the lightening of the present unfair burden on the great mass of professional and small trading classes by a new scale of graduation, rising from a penny in the pound on the smallest assessable income up to sixteen or even nineteen shillings on the pound on the highest income of the millionaires. It would involve bringing into assessment the numerous windfalls of profit that now escape, and a further differentiation between essentially different kinds of income. The Excess Profits Tax might well be retained in an appropriate form; while so long as Mining Royalties exist the Mineral Rights Duty ought to be increased. The steadily rising unearned Increment of urban and mineral land ought, by an appropriate direct Taxation of Land Values, to be wholly brought into the Public Exchequer. At the same time, for the service and redemption of the National Debt, the Death Duties ought to be regraduated, much more strictly collected, and greatly increased. In this matter we need, in fact, completely to reverse our point of view, and to rearrange the whole taxation of inheritance from the standpoint of asking what is the maximum amount that any rich man should be permitted at death to divert, by his will, from the National Exchequer, which should normally be the heir to all private riches in excess of a quite moderate amount by way of family provision. But all this will not suffice. It will be imperative at the earliest possible moment to free the nation from at any rate the greater part of its new load of interest-bearing debts for loans which ought to have been levied as taxation; and the Labor Party stands for a special Capital Levy to pay off, if not the whole, a very substantial part of the entire National Debt—a Capital Levy chargeable like the Death Duties on all property, but (in order to secure approximate equality of sacrifice) with exemption of the smallest savings, and for the rest at rates very steeply graduated, so as to take only a small contribution from the little people and a very much larger percentage from the millionaires.

Over this issue of how the financial burden of the war is to be borne, and how the necessary revenue is to be raised, the greatest political battles will be fought. In this matter the Labor Party claims the support of four-fifths of the whole nation, for the interests of the clerk, the teacher, the doctor, the minister of religion, the average retail shopkeeper and trader, and all the mass of those living on small incomes are identical with those of the artisan. The landlords, the financial magnates, the possessors of great fortunes will not, as a class, willingly forego the relative immunity that they have hitherto enjoyed. The present unfair subjection of the Coöperative Society to an Excess Profits Tax on the "profits" which it has never made—specially dangerous as "the thin end of the wedge" of penal taxation of this laudable form of Democratic enterprise—will not be abandoned without a struggle. Every possible effort will be made to

juggle with the taxes, so as to place upon the shoulders of the mass of laboring folk and upon the struggling households of the professional men and small traders (as was done after every previous war)—whether by Customs or Excise Duties, by industrial monopolies, by unnecessarily high rates of postage and railway fares, or by a thousand and one other ingenious devices—an unfair share of the national burden. Against these efforts the Labor Party will take the firmest stand.

The Surplus for the Common Good

In the disposal of the surplus above the Standard of Life, society has hitherto gone as far wrong as in its neglect to secure the necessary basis of any genuine industrial efficiency or decent social order. We have allowed the riches of our mines, the rental value of the lands superior to the margin of cultivation, the extra profits of the fortunate capitalists, even the material outcome of scientific discoveries—which ought by now to have made this Britain of ours immune from class poverty or from any widespread destitution—to be absorbed by individual proprietors; and then devoted very largely to the senseless luxury of an idle rich class. Against this misappropriation of the wealth of the community, the Labor Party—speaking in the interests not of the wage-earners alone, but of every grade and section of producers by hand or by brain, not to mention also those of the generations that are to succeed us, and of the permanent welfare of the community—emphatically protests. One main Pillar of the House that the Labor Party intends to build is the future appropriation of the Surplus, not to the enlargement of any individual fortune, but to the Common Good. It is from this constantly arising Surplus (to be secured, on the one hand, by Nationalization and Municipalization and, on the other, by the steeply graduated Taxation of Private Income and Riches) that will have to be found the new capital which the community day by day needs for the perpetual improvement and increase of its various enterprises, for which we shall decline to be dependent on the usury-exacting financiers. It is from the same source that has to be defrayed the public provision for the Sick and Infirm of all kinds (including that for Maternity and Infancy) which is still so scandalously insufficient; for the Aged and those prematurely incapacitated by accident or disease, now in many ways so imperfectly cared for; for the Education alike of children, of adolescents and of adults, in which the Labor Party demands a genuine equality of opportunity, overcoming all differences of material circumstances; and for the organization of public improvements of all kinds, including the brightening of the lives of those now condemned to almost ceaseless toil, and a great development of the means of recreation. From the same source must come the greatly increased public provision that the Labor Party will

insist on being made for scientific investigation and original research, in every branch of knowledge, not to say also for the promotion of music, literature and fine art, which have been under Capitalism so greatly neglected, and upon which, so the Labor Party holds, any real development of civilization fundamentally depends. Society, like the individual, does not live by bread alone—does not exist only for perpetual wealth production. It is in the proposal for this appropriation of every surplus for the Common Good—in the vision of its resolute use for the building up of the community as a whole instead of for the magnification of individual fortunes—that the Labor Party, as the Party of the Producers by hand or by brain, most distinctively marks itself off from the older political parties, standing, as these do essentially for the maintenance, unimpaired of the perpetual private mortgage upon the annual product of the nation that is involved in the individual ownership of land and capital.

The Street of To-morrow

The House which the Labor Party intends to build, the four Pillars of which have now been described, does not stand alone in the world. Where will it be in the Street of To-morrow? If we repudiate, on the one hand, the Imperialism that seeks to dominate other races, or to impose our own will on other parts of the British Empire, so we disclaim equally any conception of a selfish and insular "non-interventionism" unregarding of our special obligations to our fellow-citizens overseas; of the corporate duties of one nation to another; of the moral claims upon us of the non-adult races, and of our own indebtedness to the world of which we are part. We look for an ever-increasing intercourse, a constantly developing exchange of commodities, a steadily growing mutual understanding, and a continually expanding friendly coöperation among all the peoples of the world. With regard to that great Commonwealth of all races, all colors, all religions and all degrees of civilization, that we call the British Empire, the Labor Party stands for its maintenance and its progressive development on the lines of Local Autonomy and "Home Rule All Round"; the fullest respect for the rights of each people, whatever its color, to all the Democratic Self-Government of which it is capable, and to the proceeds of its own toil upon the resources of its own territorial home; and the closest possible coöperation among all the various members of what has become essentially not an Empire in the old sense, but a Britannic Alliance. We desire to maintain the most intimate relations with the Labor Parties overseas. Like them, we have no sympathy with the projects of "Imperial Federation," in so far as these imply the subjection to a common Imperial Legislature wielding coercive power (including dangerous facilities for coercive Imperial taxation and for enforced military service), either of the existing

Self-Governing Dominions, whose autonomy would be thereby invaded; or of the United Kingdom, whose freedom of Democratic Self-development would be thereby hampered; or of India and the Colonial Dependencies, which would thereby run the risk of being further exploited for the benefit of a "White Empire." We do not intend, by any such "Imperial Senate," either to bring the plutocracy of Canada and South Africa to the aid of the British aristocracy or to enable the landlords and financiers of the Mother Country to unite in controlling the growing Popular Democracies overseas. The absolute autonomy of each self-governing part of the Empire must be maintained intact. What we look for, besides a constant progress in Democratic Self-Government of every part of the Britannic Alliance, and especially in India, is a continuous participation of the Ministers of the Dominions of India, and eventually of other Dependencies (perhaps by means of their own Ministers specially resident in London for this purpose) in the most confidential deliberations of the Cabinet, so far as Foreign Policy and Imperial Affairs are concerned; and the annual assembly of an Imperial Council, representing all constituents of the Britannic Alliance and all parties in their Local Legislatures, which should discuss all matters of common interest, but only in order to make recommendations for the simultaneous consideration of the various autonomous local legislatures of what should increasingly take the constitutional form of an Alliance of Free Nations. And we carry the idea further. As regards our relations to Foreign Countries, we disavow and disclaim any desire or intention to dispossess or to impoverish any other State or Nation. We seek no increase of territory. We disclaim all idea of "economic war." We ourselves object to all Protective Customs Tariffs; but we hold that each nation must be left free to do what it thinks best for its own economic development, without thought of injuring others. We believe that nations are in no way damaged by each other's economic prosperity or commercial progress; but, on the contrary, that they are actually themselves mutually enriched thereby. We would therefore put an end to the old entanglements and mystifications of Secret Diplomacy and the formation of Leagues against Leagues. We stand for the immediate establishment, actually as a part of the Treaty of Peace with which the present war will end, of a Universal League or Society of Nations, a Supernational Authority, with an International High Court to try all justiciable issues between nations; an International Legislature to enact such common laws as can be mutually agreed upon, and an International Council of Mediation to endeavor to settle without ultimate conflict even those disputes which are not justiciable. We would have all the nations of the world most solemnly undertake and promise to make a common cause against any one of them that broke away from this fundamental agreement. The world has suffered too much from war for the Labor Party to have any other policy than that of lasting Peace.

More Light—But Also More Warmth!

The Labor Party is far from assuming that it possesses a key to open all locks; or that any policy which it can formulate will solve all the problems that beset us. But we deem it important to ourselves as well as to those who may, on the one hand, wish to join the Party, or, on the other, to take up arms against it, to make quite clear and definite our aim and purpose. The Labor Party wants that aim and purpose, as set forth in the preceding pages, with all its might. It calls for more warmth in politics, for much less apathetic acquiescence in the miseries that exist, for none of the cynicism that saps the life of leisure. On the other hand, the Labor Party has no belief in any of the problems of the world being solved by Good Will alone. Good Will without knowledge is Warmth without Light. Especially in all the complexities of politics, in the still undeveloped Science of Society, the Labor Party stands for increased study, for the scientific investigation of each succeeding problem, for the deliberate organization of research, and for a much more rapid dissemination among the whole people of all the science that exists. And it is perhaps specially the Labor Party that has the duty of placing this Advancement of science in the forefront of its political program. What the Labor Party stands for in all fields of life is, essentially, Democratic Coöperation; and Coöperation involves a common purpose which can be agreed to; a common plan which can be explained and discussed, and such a measure of success in the adaptation of means to ends as will insure a common satisfaction. An autocratic Sultan may govern without science if his whim is law. A Plutocratic Party may choose to ignore science, if it is heedless whether its pretended solutions of social problems that may win political triumphs ultimately succeed or fail. But no Labor Party can hope to maintain its position unless its proposals are, in fact, the outcome of the best Political Science of its time; or to fulfil its purpose unless that science is continually wresting new fields from human ignorance. Hence, although the purpose of the Labor Party must, by the law of its being, remain for all time unchanged, its Policy and its Program will, we hope, undergo a perpetual development, as knowledge grows, and as new phases of the social problem present themselves, in a continually finer adjustment of our measures to our ends. If Law is the Mother of Freedom, Science, to the Labor Party, must be the Parent of Law.

2. PART OF THE LABOR PARTY PLATFORM OF 1929

The Labor Party will carry out its policy by peaceful means, but it will carry it out. Since it has set the example of working out, in practical detail, the social and international reconstruction which it proposes, the

character of its program is generally known, and we need not here do more than recapitulate briefly the fundamental principles upon which it rests. They are the protection against exploitation of the worker and the consumer; the increase of national wealth by the application to production and distribution of the possibilities revealed by the progress of scientific knowledge and of the art of administration; the extension of common provision for the common requirements of a civilized existence; the utilization for the public benefit of the surplus wealth which to-day too often at once enriches and degrades a small minority of the population; and the systematic pursuit of a policy of peace and cooperation in international affairs. The roads along which the Labor Party will advance to the establishment of the Socialist Commonwealth are, therefore, five. It will use its power

(i) To secure to every member of the community the standards of life and employment which are necessary to a healthy, independent and self-respecting existence.

(ii) To convert industry, step by step, and with due regard to the special needs and varying circumstances of different occupations from a sordid struggle for private gain into a cooperative undertaking, carried on for the service of the community and under its control.

(iii) To extend rapidly and widely those forms of social provision—education, public health, housing, pensions, the care of the sick, and maintenance during unemployment—in the absence of which the individual is the sport of economic chance and the slave of his environment.

(iv) To adjust taxation in such a way as to secure that due provision is made for the maintenance and improvement of the material apparatus of industry, and that surpluses created by social effort shall be applied by society for the good of all.

(v) To establish peace, freedom and justice by removing from among the nations the root causes of international disputes, by conciliation and all-inclusive arbitration, by renouncing war as an instrument of national policy, by disarmament, by political and economic cooperation through the League of Nations, and by mutual agreements with States which are not members of the League.

The Maintenance of Civilized Standards of Life and Work

The beginning of social reconstruction must be to set firm ground beneath the feet of the workers of the nation, in place of the quaking morass

n which too often they flounder to-day. Since the war, whilst the Superax Payer has continued to flourish, wage-rates in many industries have been repeatedly reduced, actual earnings have been seriously diminished by unemployment, and the hours of the workers in a particularly arduous and dangerous occupation have been lengthened by the action of the Government. Moreover, while the reign of terror initiated by the mine-owners in certain of the coalfields of the country is exceptional, no doubt, in its ferocity and its folly, the miners are not alone in having suffered grave injuries to their standard of life. In other occupations, long-established rights have been curtailed and traditional safeguards against oppression have been undermined.

LEVELING UP, NOT DRAGGING DOWN.—The Labor Party holds that to attempt to cheapen production by attacking the standard of life of the workers of the nation is, not only socially disastrous, but highly injurious to the economic prosperity of the whole community. The way to recover foreign markets which have been lost or have contracted, is not to begin by destroying the home market as well. To attempt to compete by following the downward path of lower wages and longer hours is to take the first step down a slippery slope, at the bottom of which lies universal ruin. Progress is to be achieved, not by pitting the workers of one nation against those of another, but by the common cooperation of all nations in establishing equitable international standards of life and work. Economic beggar-my-neighbor is a game at which more than one can play, and the reply of foreign producers to lower wages and longer hours in Great Britain is only too likely to be the introduction of lower wages and longer hours abroad. In so far as that result occurs, the conditions of the workers will everywhere be deteriorated, while the relative competitive positions of the countries concerned will remain unaltered.

WIDER MARKETS—AT HOME.—The course dictated by considerations both of common-sense and humanity, the Labor Party holds, is precisely the opposite from this suicidal rivalry in mutual degradation. It is not to curtail the purchasing power of the population of Great Britain, which offers to British producers what is overwhelmingly their most important market. It is to maintain and increase it by every means in our power. The time has, happily, passed when employers could venture with impunity to follow the primrose path of economies effected at the cost of the health and vigor of the human personnel, for whom alone the industrial system is worth maintaining. If, as their spokesmen allege, they are eager to increase industrial efficiency, they will be well advised to begin by setting their own house in order—to modernize their organization, improve their technique, eliminate waste, and apply more intelligently the resources which science has revealed. There is no reason why cotton operatives should suffer because mill-owners have watered their capital, or miners because mine-owners are too incompetent to understand their

business and too obstinate to take the advice of those who do, or workers everywhere because the organization of British industry, as one critic after another has remarked, is antiquated and out of date, and employers, instead of improving it, use the old fallacious argument of inferior labor conditions abroad as a weapon to degrade labor conditions at home. The Labor Party does not intend that they should. In full accordance with the best economic opinion, it stands both for the systematic, universal and thoroughgoing application of the policy of fixing minimum standards of life and employment, in such a way as at once to safeguard the workers against the downward pressure of unscrupulous or incompetent employers and to increase the efficiency of industrial organization, and for the general adoption of the principle of equal pay for equal work. Needless to say, it will give its whole-hearted support to the establishment of international standards through the International Labor Organization and to their rigorous enforcement, with the object of securing and maintaining the best possible conditions of working-class life both at home and abroad.

Industrial Legislation

A CHARTER FOR TRADE UNIONISM.—The wage-earner's first safeguard is his Trade Union. The Government has done its utmost to deprive him of it. Among the first tasks of the Labor Party, therefore, will be to repeal the cynical measure of class-legislation, by which the Conservatives have sought to cripple the strength of Trade Unionism both on the industrial and on the political fields. At the same time, while restoring to the organized workers the rights of which they have been unjustly deprived, it will devote its energies to maintaining and advancing the standard of life of the whole population, both by the passage of urgently needed legislation and by insuring that such legislation as exists is more effectively administered. The code of Factory and Workshops Acts, Mines Regulation Acts, Shop Hours Acts, Miners' Minimum Wage, Trade Boards, and Agricultural Wages Board Acts, Workmen's Compensation Acts, Pensions, Public Health, Insurance and Education Acts is riddled with gaps. Not only so, but owing to the reluctance of capitalist politicians to find the money for their effective administration, the practical enforcement of these measures is gravely defective. The Labor Party will make it its business to extend their scope and improve their administration.

NEW STANDARDS IN INDUSTRY.—The Labor Party will take up again the Factory and Workshops legislation prepared when a Labor Government was in office. Convinced that the low economic standards of one nation react injuriously upon all the rest, and that it is at once the duty and the interest of Great Britain to lead the way in humanizing the conditions of employment, it will ratify the Washington Convention establishing a forty-eight hour week by international agreement, and will

use its influence to secure the international adoption of a progressively advancing code of Labor legislation. The iniquitous measure by which the Conservative Government has imposed a longer working day upon the mining population must be repealed, and international safeguards must be secured with a view to effecting corresponding improvements in the working conditions both of Continental miners and of other workers abroad, so as to prevent unfair competition and the deterioration of standards of life and work. Such steps as are necessary must be adopted to improve the health of the miner and the comfort of his home, by securing that pit-head baths, the provision of which by mine-owners is compulsory in all the principal coal-producing countries of Europe, are brought within the reach of all. The shocking roll of accidents—resulting in over 1,000 deaths and 160,000 injuries every year—must be reduced, by providing for inspection on a more adequate scale, and by prosecuting with rigid impartiality for breaches of the law.

Moreover, as the greatest of maritime nations, Great Britain is under peculiar obligations to her seafaring population, and the need of a drastic improvement in their position is equally urgent. The conditions at present permissible on British ships are actually inferior to those allowed by the majority of other countries, and constitute not infrequently a grave national scandal. The Labor Party, which has repeatedly championed the seafarers' cause in the House of Commons, intends that that scandal shall be ended. It stands for the amelioration of hygiene and living conditions on board, for a reduction of working hours, and for the establishment, for all grades of seafarers, of equitable conditions of life and employment.

THE LIVING WAGE.—Nor is it only the establishment of effective safeguards against overwork, accidents, and industrial disease which will require attention. There is also the not less vital necessity of using the power of the State to supplement Trade Union action in fixing standards of wages compatible with a life of health and comfort. The Labor Party has always stood for the widest possible application of the policy of the living wage, and for such legislative and industrial changes as may be needed in order to enable it to be carried into practical effect. The Trade Boards Acts, under which legally enforceable minimum rates are fixed for more than a million workers, must be extended to include within its scope classes of workers who are at present defenceless, and the machinery of inspection, through which the payment of the rates fixed is enforced, must be enlarged. The Fair Wages clause in public contracts must be strengthened and rigorously enforced. Greater powers must be vested in the Central Agricultural Wages Board, and an end must be put to the scandalous negligence which at present causes the minimum rates for agricultural workers fixed by the agricultural wages boards to be in some areas systematically, though illegally, evaded.

Unemployment and Industrial Prosperity

While the Labor Party differs from its capitalist opponents in holding that no industry can be a source of wealth to the nation which does not secure to the workers engaged in it the wages, hours of labor, and conditions of employment that are essential to health, economic independence and the enjoyment of reasonable leisure, it differs from them still more in its attitude to unemployment. According to the doctrine long advanced by Conservative and Liberal politicians, and still echoed, even to-day, in the face of a century of experience, the cause of unemployment is to be found in some defect of individual character or some lack of personal initiative, and provision for it must be restricted, therefore, to the barest necessities of physical existence.

Hence the Conservative Government has abandoned in despair the fulfilment of its pledges to prevent unemployment from occurring, while, when it occurs, it regards every proposal to provide honorable maintenance for those who suffer from it as a step on the road to national bankruptcy. By an inconsistency as irrational as it is cruel, it drives the unemployed on to the Poor Law, and then penalizes Poor Law authorities for coping with the problem flung at them by itself. Its interference with Local Authorities through the Board of Guardians (Default) Act, the Local Authorities (Audit) Act, and the Local Authorities (Emergency Provisions) Act, is a characteristic and sinister blow at one of the essential foundations of democratic government.

The Labor Party has always protested against a policy which attempts to palliate the symptoms of a grave social disease, while refusing to cope with its fundamental causes. It has no desire, therefore, for an extension of "doles," whether they are paid from the rich to the poor, or, as is more commonly the case to-day, from the poor to the rich, and it only regrets that its Conservative opponents, who are horrified when such payments are made to the destitute, appear to regard them with equanimity when they are received, in the shape of dividends and rent, by the well-to-do. But, while it would welcome the impartial application to all classes of the rule that he who will not work shall not eat, it repudiates as an outrage the suggestion, still advanced to-day, in spite of its repeated refutation by official inquiries, that unemployed workers are not anxious to obtain employment. It insists that, as long as the nation chooses to maintain an economic system by which unemployment is produced, the weight must not be allowed to fall with crushing severity either upon its helpless victims or upon the overburdened ratepayers.

PROVISION FOR THE UNEMPLOYED.—Naturally, therefore, the Labor Party will take every step in its power to insure that the provision for unemployment is humane and adequate, and will meet the additional cost by State grants, so that it falls neither on the worker's contribution nor on

the cost of production. It will introduce such amendments as are necessary in the Unemployment Insurance Acts, in order that the needs of the insured unemployed worker shall be fairly met, and will extend the principle of unemployment insurance to sections of the population, such as agricultural workers and domestic servants, at present outside its scope. It stated in its evidence before the Blanesburgh Committee the scale of benefits which it regarded as the minimum to be paid, and to that scale it adheres. It will treat unemployment as what it is—a national, and not a local, issue—and will transfer the present responsibility for Unemployment from the local rates to a national scheme.

Unemployment is not, however, a single problem, and unemployed workers do not fall into one uniform category. The causes which plunge them in distress are diverse, and the plans for helping them must be equally various. In the case of young persons the steps immediately required are simple. The age of entry into industry must be raised. Demoralizing blind alley jobs which end in the queue at the Employment Exchange must be abolished. Juvenile work of a temporary kind must be regarded only as the recruiting ground for better forms of employment. Unemployment benefits for boys and girls must be conditional upon attendance at a juvenile centre, where the disastrous effects of enforced idleness may be counteracted, and skill, adaptability and self-discipline fostered by opportunities for training.

The chronic under-employment of the casual worker at the docks and on the fringe of many of our great industries must be dealt with by decasualization through scientific organization.

The worker who loses his position through seasonal or cyclical fluctuations of industry, or through other accidental causes, must be secured against hardship and privation during his temporary unemployment by an adequate unemployment insurance scheme.

The disabled or aged worker, whose grip on the labor market has been weakened by physical enfeeblement, must be offered an honorable retirement, with an adequate pension.

REDUCING THE SURPLUS.—The surplus of labor in certain industries, for whom at the moment there seems little or no prospect of a permanent foothold, presents a special problem calling for special treatment. Labor would reduce the supply of workers competing for jobs in an overcrowded labor market by the withdrawal of those whose services can best be spared, or who for social reasons should be demobilized from industrial employment. Thus a Labor Government would retain at school for, at least, a further year, with due provision for adequate maintenance allowances, children who in any case ought, for their own sakes and because of their future responsibilities as citizens, to be continuing their education, but who to-day are recklessly flung at fourteen into the industrial whirlpool. It would improve the widows' and orphans' pension scheme

and provide more generously for the veterans of industry, whilst for those prepared to cross the seas in search of new opportunities it would make provision by well-considered schemes of training and settlement.

The Development of National Resources

But, essential as is the humane treatment of the workers, it is vital that the restoration of normal trade, and the establishment of permanent machinery for the prevention of unemployment, should be placed in the forefront of the program. The Labor Party will not be satisfied, as Capitalist Governments have hitherto been satisfied, merely with tinkering with unemployment when unemployment occurs. It declines to accept their placid assumption that, in the twentieth century, the recurrence of involuntary idleness is still to be regarded, like tempests and earthquakes, as an act of God. It conceives to be a primary duty to develop opportunities for employment, and it regards the necessity for providing maintenance for workless labor as a measure of the failure to cope with the major problem.

The prevention, by all practicable means, of trade depression, has or long been an integral part of Labor policy. The most effective lines of advance are the wise development of the nation's resources—its land, waterways and harbors, its mineral wealth, and, above all, its "man power"—the improvement of the key services of finance, power and transport, on which all other industries depend, the elimination of waste and inefficiency in productive processes and in the machinery and methods of marketing and distribution, the more active promotion of scientific and industrial research, the protection of the consumer, and, in the sphere of foreign affairs, the establishment of stable peace and the expansion of overseas markets. These various proposals are linked together as essential parts of Labor's policy for placing the nation's economic activities on a sound basis.

It is obvious, therefore, that the action to be taken in order to promote economic prosperity is not to be summarized in any single formula. The policy of the Labor Party will have as its object, not merely to relieve unemployment, but to remove its causes by promoting the expansion of industry and trade. In its view alternating periods of neglect and of feverish and short-sighted action by Governments must give place to the conscious development of economic activities for national ends, and new and closer relations between the State and industry must be established. Nor must the importance of readjusting financial burdens between the State and Local Authorities, which has long been the policy of the Labor Party, be forgotten. It is imperative that Local Authorities should be relieved of a substantial portion of the charges which now fall upon them, both by transferring the cost of certain services to national

funds and by increasing the grants paid by the State in respect of others, and also that they should obtain power to increase their local revenues by rating land-values. Both these items of policy, by reducing burdens on productive effort, would bring a much needed relief to the industries of the country.

By the discouragement of luxury spending and the direct increase of purchasing power in the hands of the workers, through better provision against unemployment, sickness, invalidity and old age, a Labor Government would increase the demand for staple commodities and powerfully assist the restoration of the chief industries of the country.

In cooperation with other nations it would strive to break down artificial barriers to trade, as suggested by the International Economic Conference (1927). In order to meet the requirements of the present world economic situation and to cope with the problems created by the rise of international monopolies and trading organizations, it would support an extension of the powers and activities of the Economic Section of the League of Nations.

The full results of Labor's general policy can accrue only in the course of time. It is therefore essential in the meantime to take every possible immediate step which will ameliorate existing conditions and assist in promoting industrial recovery.

A NATIONAL ECONOMIC COMMITTEE.—A Committee of Imperial Defense has long been in existence to advise the Cabinet on questions of strategy and military organization. But, though the problems of peace are more vital to the nation than those of war, capitalist governments have not hitherto thought it worth while to devote to the former the same unremitting attention and continuous preparation as they have given to the latter. The Labor Party will make it its business to repair at once that disastrous omission. It will create permanent machinery through which scientific knowledge and technical skill may be mobilized for improving the organization of industry, increasing economic efficiency, and raising the standard of life throughout the whole community.

With this object, a Labor Government will establish a National Economic Committee, acting under the directions of the Prime Minister, which will be his eyes and ears on economic questions, and keep both him and the country informed as to the economic situation and its tendencies. By undertaking a continuous survey of economic conditions, both at home and abroad, such a committee would serve the Government and the public as a barometer of economic changes. It would thus insure that economic policy was accurately adjusted to the needs of the moment, and would provide the exact information, which is indispensable both to the satisfactory conduct of industrial negotiations and to the effective application of the measures suggested below for coping with unemployment.

THE EMPLOYMENT AND DEVELOPMENT BOARD.—Moreover, both in the interests of the future and in order to reinforce the efforts made to cope with the industrial stagnation of the present, it is essential that there should be some permanent machinery to avert the onset and minimize the effects of trade depression by the application of a considered and comprehensive policy.

Such machinery is supplied by the Labor Party's Prevention of Unemployment Bill. With a view to insuring that the national estate be scientifically developed, and that useful employment is found for those who at present must endure the misery of involuntary idleness, it would establish an Employment and Development Board, which would have at its disposal each year a Treasury grant to be drawn upon as required. It would be the duty of the Board to bring development schemes to the point of execution in readiness for the time when they should be pushed ahead in the interests of employment and trade.

There is no lack of sound schemes the urgent need for which is generally admitted. The loss of life and property from floods, and the injury to agriculture and the nation caused by the existence of a million and three-quarter acres of waterlogged land in England and Wales, call urgently for consideration. A national drainage scheme, designed to prevent the recurrence of floods, would be a protection to life, health and property, and would improve the value of large tracts of land. Much still remains to be done in protecting the nation against coast erosion, in making good the denudation of British forests by more extensive afforestation, in extending the provision and use of electricity, in the clearance of slums and the erection of new houses, and in the building of new "satellite towns" with their own public buildings, schools, theatres and business premises.

The enormous growth of road transport demands a network of arterial and subsidiary roads, such as were not dreamt of before the days of motor transport. A vast program lies ahead of us in the building of new roads, the widening and straightening of existing roads and their adaptation to modern needs, and the erection and reconstruction of bridges. Such measures must be carried out in conjunction with the regional planning schemes of the Ministry of Health and with an eye to future economic developments. The Chancellor of the Exchequer's raids upon the Road Fund, and his transference of part of the proceeds of the Excise Duties on Motor Vehicle Licenses to the general purposes of the Exchequer, have deprived the road system of much needed resources. The requirements of to-day can only be met by liberating greater resources, and by a recognition of the fact that the main roads are national rather than local in character.

A Government which itself takes a lead in developing national resources, and in re-equipping and modernizing the services which it owns

or controls would not fail to impress upon industry at large the need for bracing itself to meet the needs of our time by a bold policy on similar lines.

The policy of a Labor Government through the National Economic Committee and the Employment and Development Board would aim, in short, at a progressive improvement in the economic efficiency of the whole nation by every means in their power.

The Democratic Control of Industry

The Labor Party will not be contented, however, merely to abolish the grosser scandals of underpayment, conditions of labor injurious to health, excessive hours, and unemployment. It proposes, not simply to patch the house, but methodically and patiently to rebuild it. It is unable to believe that mankind will be satisfied forever to resign the provision of the material requirements of its civilization to the blind chances of a scramble for personal gain, which is ruinous to those who fail, and too often demoralizing to those who succeed. It holds that, however inevitable such economic privateering may have been in the past, and in some countries may be to-day, the people of Great Britain can now do better, and that, thanks to the development of scientific knowledge, of a national administrative service, of Local Government, of the Co-operative Movement, of vocational organization among all classes of workers, and, not least, of tendencies inherent in industry itself, the community to-day possesses the means to control its own economic future, if it possesses also the will to use them. Hitherto the mass of mankind have lived as the tenants-at-will of a minority of capitalists and landlords. The Labor Party, which believes in democracy in industry as well as in government, intends that the great foundation industries, on which the welfare of all depends, shall be owned and administered for the common advantage of the whole community.

THE MENACE OF THE TRUST.—Labor is aware, of course, that the capitalist Press, a large part of which is to-day controlled by less than a dozen rich men, will raise the cry that individual liberty and economic efficiency are threatened by the extension of public ownership and social control.

It notes, however, that while a considerable number of Conservative and Liberal politicians, with their customary indifference to changes which are taking place beneath their eyes, continue to repeat the musty shibboleths of the nineteenth century as to the virtues of "private enterprise," and the dangers involved in interfering with it, private enterprise is day by day being abolished by the formation of combinations, and that where, as in the coal industry, it still survives, it is characterized by an inefficiency so glaring and so irremediable as to fill enlightened capitalists themselves

with astonished embarrassment. Capitalism appears, in short, as was long ago prophesied of it, to be engaged in the congenial task of devouring its own children. It is abolishing, with an almost indecent precipitation, a large proportion of the opportunities for independent economic activity, its efficacy in increasing which was formerly its favorite boast. The choice which to-day confronts the nation, therefore, is not between private enterprise and public control, but between the conduct of industry as a public service, democratically owned and responsibly administered, and the private economic sovereignty of the combine, the syndicate and the trust. It is, in short, between public ownership or control and one form or another of industrial feudalism.

THE PUBLIC OWNERSHIP OF FOUNDATION INDUSTRIES.—Faced with such an alternative, no self-respecting party, which believes in democracy, can hesitate for a moment. The land, both agricultural and urban, the production and distribution of the coal and power which are the life-blood of modern industry, the network of communications and transport which forms its veins and arteries, the control of the credit which regulates and lubricates the economic mechanism, the system of industrial life insurance needed to safeguard the worker against the risks confronting him, and through which he too often to-day is shamelessly exploited—these and other fundamental necessities are too vital to the welfare of the nation to be organized and exploited for private profit. Without haste, but without rest, with careful preparation, with the use of the best technical knowledge and managerial skill, and with due compensation to the persons affected, the Labor Party will vest their ownership in the nation, and their administration in authorities acting on the nation's behalf. It observes, indeed, with a satisfaction not unmingled with amusement, that, though these indispensable reforms will be contested, of course, by private interests, the battle over principles is already more than half won—that the nationalization of mines has been recommended by a majority of one Royal Commission, and the nationalization of minerals by two; that the nationalization of land has long been urged by many who would repudiate with indignation the name of Socialist; that afforestation is carried forward, amid general approval, by a National Authority; that, though "Nationalization" is anathema to the Conservative Government, that Government itself has been driven, in view of the intolerable anarchy that existed, to organize and coördinate electricity production and its wholesale distribution under a Central Electricity Board appointed by the State; and that even those who reject the policy of public ownership are emphatic as to the necessity of an increasingly stringent public control being applied to all aspects of industrial organization. So, in spite of themselves, are even false prophets induced by the logic of facts to bear tardy testimony on the side of truth!

Confirmed as to the wisdom of its policy by practical experience of the waste and inefficiency of private ownership in services which, whether called

private or not, are essentially public in character, the Labor Party will proceed to carry it forward with the utmost rapidity that circumstances allow. As its opponents are well aware—though, for obvious reasons of controversy, it does not suit them to admit it—it has no intention of submitting the industries of the country to a régime of bureaucratic torpor. While it stands for order as against anarchy, and for science as against rule of thumb, it recognizes that different industries have different requirements, and that the constitution under which each is governed must be adapted more closely than is often the case to-day to the practical requirements of varying circumstances.

THE COÖPERATIVE MOVEMENT.—In the structure which it contemplates, therefore, voluntary initiative and public organization will alike play their part. The magnificent system of non-profitmaking enterprise erected by the Coöperative Movement, which already caters for some five million families, reveals at once the capacity of the workers for economic self-government and the superiority of the honorable motive of social service over the struggle for personal profit. The Labor Party regards Coöperation as an indispensable element in the Socialist Commonwealth which is its own ideal, and looks forward to the time when it will include every member of the community. Naturally, therefore, it will work in the fullest alliance with Coöperators, will take constant counsel with them in elaborating its policy of economic reconstruction, and will utilize their long experience and specialized knowledge to build a social order which may realize the lofty hopes that have inspired the prophets and pioneers of the Coöperative Movement.

MUNICIPAL SOCIALISM.—In contrast with the distrust apparently felt in some quarters for the democratic machinery of Local Government, the Labor Party holds that the inhabitants of London and Manchester, of Leeds and Sheffield, and of the other great cities of the country, are the best judges of their own affairs, and it desires to see an extension of the activities of Local Authorities into new spheres. It proposes, therefore, as indicated in the Local Authorities (Enabling) Bill already introduced by it, to untie their hands, to encourage them to expand their functions, and, subject to due safeguards in respect of efficiency and capital expenditure, to empower them to undertake such services as their citizens may desire, including the compulsory acquisition of land by the cheapest procedure without unnecessary formalities, and the conduct of economic enterprises from which at present they are debarred.

THE CONTROL OF CREDIT AND CURRENCY.—The dependence of national well-being upon banking policy needs no demonstration. It has been brought home by the events of the last ten years with tragic emphasis. By a decision of the Bank of England—a decision approved, no doubt, by the Treasury, but taken in secret, without warning or explanation, and without any opportunity being offered for criticism or discussion—wide-

spread dislocation was created, the ramifications of which affected the whole of our economic life. As things are to-day a handful of financiers, subject only to consultation with the Treasury, determine, as they deem expedient, the rhythm of economic life for the whole community.

THE BANK OF ENGLAND AS A PUBLIC CORPORATION.—Such powers are too great to be entrusted to private hands. It is clearly intolerable that a small group of individuals, however eminent, should be in a position to take, without any direct responsibility to the public, decisions which vitally affect the economic activities and social welfare of almost all their fellow-countrymen. If the nation is to be master in its own house, it is essential that it should bring the larger issues of banking policy under its own control. It is now more than three-quarters of a century since the present charter of the Bank of England was framed, and in the interval the economic position of Great Britain has been profoundly changed. The Labor Party believes that it has a great body of informed opinion upon its side when it states that the time has come to establish a new relationship between the Bank and the State. The constitution of the Bank should be such as to ensure that, while the fullest use is made of expert knowledge and practical experience, the Bank shall be directly under public control, and that its governing body shall be responsible not merely, as at present, to individuals, but to the community. The Labor Party proposes, therefore, that the government of the Bank of England shall be vested in the hands of a public corporation, and shall contain representatives of the Treasury, the Board of Trade, Industry, Labor and the Coöperative Movement.

BANKING POLICY AND PUBLIC NEEDS.—The Bank of England is the citadel of the banking system, and its control by a public authority will go far to ensure that banking policy is brought into conformity with public needs. It is also, however, of urgent importance to extend banking facilities to persons of small means, to ensure that the available supply of credit and savings shall be used for purposes of national advantage, and to secure stability both of the exchanges and of the purchasing power of money. The last problem, a world problem rather than a national problem, was discussed at length by the Genoa Conference, and a Labor Government will do all in its power to implement the proposal there advanced for periodical meetings of representatives of the Central Banks of different countries with a view to the general maintenance of stable gold prices. The simplest and most practicable method of providing that suitable banking facilities are brought within the reach of every section of the population consists in the further development of Coöperative and Municipal Banks. Such banks have already rendered conspicuous services, and the Labor Party will make every effort to promote their extension. It observes, moreover, with grave concern the present diversion of a considerable proportion of the national credit and national savings into enterprises which, from a public point of view, are at best useless, and, at worst, mischievous. It holds that any sane

method of allocating them among different undertakings should be based on qualitative, as well as quantitative, considerations, and that services of national importance must be adequately financed before resources are placed at the disposal of enterprises concerned with luxuries or amusements. A Labor Government, if returned to power, will set on foot the investigations that are necessary in order to ensure that such a policy shall be carried into effect with the least practicable delay.

THE NATIONALIZATION OF THE COAL INDUSTRY.—In planning the machinery through which nationalized industries are to be administered, the Labor Party will have regard to the need of securing full scope for individual initiative and business experience, freedom from needless red tape, the utmost possible elasticity and decentralization compatible with the efficiency of the service, and, subject always to final control by the representatives of the community, the association of the various grades of workers, both managerial and manual, in the conduct and administration of their respective industries. The present disorganization of the coal industry, with its 4,000 mineral owners, 1,300 or more colliery companies, and 25,000 odd distributors—with its antiquated and inefficient system of production and distribution, its wasteful methods of consumption and neglect of valuable by-products, and its deplorable indifference both to the interests of posterity and to the possibilities of the scientific treatment of coal, which is rapidly progressing in other coal-producing countries—is, by general consent, intolerable. Particularly in view of the resistance of the mine-owners to even the most cautious proposals for improvement, the Labor Party sees little hope of the necessary reorganization being effected by the piecemeal procedure recommended by the last Commission, and that judgment is confirmed by the history of the industry in the two and a half years since the Commission's Report was published.

The Labor Party demands the nationalization of the Coal Industry, therefore, not through any doctrinaire determination to apply a formula irrespective of circumstances, but for reasons of immediate and practical urgency. Experience has shown that if the existing waste in production and distribution is to be eliminated, and if the full value in energy and chemical products is to be extracted from an irreplaceable asset, the first and indispensable condition is to extinguish the disorderly welter of conflicting interests which at present paralyze the development of the industry. The only effective method, the Labor Party holds, of rescuing the Coal Industry from the ever-deepening chaos into which it has fallen, is to unify it under public ownership. It is to convert it into an efficient and honorable public service, to develop the treatment of coal and the provision of power on scientific lines, as an integral part of the industry, to reorganize the distributive processes under public control, and to administer the industry with due regard both to the requirements of the commu-

nity and to the claim of the mineworkers for civilized standards of life and work.

Though, however, a Labor Government would take upon itself the duty of nationalizing the mines, it could not—pending the passage into law of its proposals, the creation of the administrative machinery necessary, and the carrying into full effect of its policy—stand idly by and acquiesce in the intolerable conditions prevailing in the coalfields. On the contrary, it would come to the immediate succor of the mining population with the greatest possible speed. The disastrous Act by which the Tory Government added an hour to the working day of the miners must be at once repealed. The pressure of unemployment on the coalfields must be relieved by providing superannuation allowances for the veterans of the industry (towards which the royalties received by mineral owners may properly be required to make a substantial contribution), by a general measure raising the school leaving age, with the provision of the necessary maintenance grants, by the regulation of recruitment into the industry, and by assisting the migration of miners into other districts and other suitable occupations. The improvement of the Unemployment Insurance scheme, which Labor contemplates, its proposals for relieving the heavy burden of rates, and its general attack on the trade situation would go far to assist both the miners and the coal industry itself.

Summary

The Labor Party asks for power. If granted power, it will use it both to lay the foundations of a new social order, and to relieve immediate distress, by carrying out, as rapidly as Parliamentary opportunity permits, the policy embodied in "Labor and the Nation," of which the following legislative and administrative measures are a summary:—

I.—INDUSTRIAL LEGISLATION

1. The Repeal of the Trade Unions Act and the Restoration of Trade Union Rights.
2. The establishment of a 48-hour week.
3. The improvement and extension of Factory Acts, Mines Regulation Acts, Workmen's Compensation Acts, Merchant Shipping Acts, Minimum Wage Acts, and other industrial legislation.
4. The establishment and enforcement of international labour standards.

II.—UNEMPLOYMENT

1. The establishment of adequate provision for unemployed workers, under the control of a National Authority.
2. The amendment of the Unemployment Insurance Acts, the establishment of the scale of benefits recommended by the Labor Party in its evidence before the Blanesburgh Committee, and the extension of the principle of Unemployment Insurance to classes of workers at present outside its scope.

3. The withdrawal from the Labor market of children under 15, with the necessary provision of maintenance allowances.
4. The improvement of the provision made for widows and orphans and for the veterans of industry.
5. The repeal of the Eight Hours Act in the coal industry.
6. The transference and migration of unemployed miners.
7. The establishment of a superannuation scheme for aged miners.

III.—THE DEVELOPMENT OF INDUSTRY AND TRADE

1. The establishment of a National Economic Committee to advise the Government as to economic policy, and of a National Development and Employment Board to prepare schemes for the development of national resources
2. The control of the Bank of England by a public Corporation, including representatives of the Treasury, the Board of Trade, Industry, Labor and the Coöperative Movement; the encouragement of Coöperative and Municipal banking; the promotion of an International Conference, as proposed at Genoa in 1922, with a view to the regulation of the value of gold by international agreement; and the introduction of such further changes in the banking and financial system as will secure that the available supply of credit and savings is used to the greatest national advantage.
3. The transference to public ownership of the coal, transport, power, and life insurance industries.
4. The appointment of a Commission to prepare a scheme for the reconstruction of the cotton industry.
5. The relief of industry by the readjustment of the relations between national and local finance and by the taxation of land values.
6. The protection of the consumer against exploitation and the extension of the powers of the Food Council.
7. The establishment of the fullest possible publicity with regard to costs and profits.
8. The promotion of scientific research, with a view to the improvement of industrial technique.
9. The extension of the powers of the Economic Section of the League of Nations.

IV.—AGRICULTURE AND RURAL LIFE

1. The transference of land to public ownership.
2. The establishment of security of tenure for efficient farmers.
3. The provision of credit on easy terms.
4. The stabilisation of prices by the collective purchase of imported grain and meat.
5. The elimination of waste by the development of collective marketing.
6. The establishment of efficient services of electrical power and transport in rural areas.
7. The protection of the agricultural worker by the establishment of an adequate minimum wage, effectively enforced, and of reasonable hours of labor.

- 8 The improvement of the services of health, housing and education in rural districts.
9. The provision of facilities for the acquisition of land, both for small holdings and for allotments.
10. The introduction of legislation to abolish the evils of the tied cottage, and the rapid development of housing schemes in rural areas.
11. The development of the fishing industry, and the improvement of the conditions of fishermen and their dependents.

V.—THE DEVELOPMENT OF THE SOCIAL SERVICES

1. The passage of legislation to enable the larger local authorities to undertake such services as their citizens may desire, subject to due safeguards in respect of efficiency and capital expenditure.
2. The provision of an adequate supply of houses at rents within the means of the workers, the establishment of cottage homes for the aged, the continuance and strengthening of the Rent Restriction Acts, and the prevention of profiteering in land and building materials.
3. Slum clearance and the extension of town and regional planning.
4. The provision of medical care before and after child-birth, and the extension and improvement of the school medical service.
5. The amendment of the Health Insurance Acts, and the extension of insurance, including additional medical benefits, to the dependents of insured workers and to sections of the population at present outside its scope.
6. The improvement of pensions for the aged and of the allowances provided for widows and orphans.
7. The break-up of the Poor Law.

VI.—EDUCATION AND THE CARE OF CHILDHOOD

1. The creation of a democratic system of education, adequately financed, free from the taint of class distinctions, and organised as a continuous whole from the Nursery School to the University.
2. The fullest possible provision for the physical well-being of children, by the establishment of the necessary number of open-air Nursery Schools, other open-air schools, and special schools for defective children, by the extension of school meals and by the further development of the school medical service.
3. The adequate staffing of Primary Schools and the drastic reduction in the size of classes.
4. The improvement of school buildings, and the provision of books, equipment and amenities on a generous scale.
5. The regrading and development of education in such a way as to secure primary education for all children up to 11, and free secondary education, of varying types, for all children above that age.
6. The extension of the school-leaving age to 15, with a view to its being raised to 16 as soon as that further reform shall be practicable, and the necessary provision of maintenance allowances.
7. The establishment of easy access to Universities and to other places of

higher education, and the provision of adequate financial assistance for them.

VII.—FINANCIAL POLICY

1. The progressive reduction of expenditure on armaments.
2. The abolition of taxes upon the necessities of life and of protective duties.
3. The increase of the death duties upon large estates.
4. The further graduation of the income tax so as to relieve the smaller, and increase the contribution from the larger, incomes.
5. The establishment of an additional graduated surtax on incomes from property of over £500 per annum.
6. The taxation of land values.

VIII.—INTERNATIONAL PEACE AND COOPERATION

1. The renunciation by international treaty, without reservation or qualification, of the use of war as an instrument of national policy, and the negotiation through the League of Nations of international agreements.
2. The reduction of armaments, by international agreement, to the minimum required for police purposes, with due provision for the employment elsewhere of workers who are displaced, and opposition to compulsory military service.
3. The immediate signature of the Optional Clause, the consequent acceptance of the jurisdiction of the Permanent Court of International Justice in all justiciable disputes, and the signature of the General Act of Arbitration, Conciliation and Judicial Settlement, drafted and approved by the Assembly of the League of Nations in 1928.
4. The repudiation of the agreement with regard to military and naval forces which the Conservative Government has attempted to negotiate with France.
5. The immediate and unconditional withdrawal of all foreign troops from the Rhineland.
6. The promotion of international economic coöperation, as recommended by the International Economic Conference of 1927, and cordial cooperation with the International Labor Office.
7. The establishment of the fullest possible publicity with regard to international relations and policy, the publication of any international agreement not yet disclosed, or disclosed only imperfectly, and the submission of all international engagements to the House of Commons.
8. The systematic use of the League of Nations to promote the utmost possible measure of coöperation between the nations of the world.
9. The establishment of diplomatic and commercial relations with the Russian Government.

IX.—THE BRITISH COMMONWEALTH OF NATIONS

1. The establishment of the closest possible coöperation, on terms of complete equality, between Great Britain and the Dominions.
2. The recognition of the right of the Indian people to self-government and

- self-determination, and the admission of India to the British Commonwealth of Nations on an equal footing with the self-governing Dominions.
3. The establishment of safeguards against the exploitation of indigenous peoples by European capital, the prevention of forced labor and of injurious or inequitable conditions of employment, the protection of such people in the occupation of their land and in the exercise of civic rights, the development among them of the services of health and education, and their preparation, by all possible means, for full self-government at the earliest practicable date.
 4. The strengthening and extension of the authority of the Mandates Commission of the League of Nations.
 5. The development, in cooperation with the other States composing it, of the economic resources of the British Commonwealth of Nations, and the establishment of machinery for the advice and supervision of intending emigrants.

X.—POLITICAL DEMOCRACY

1. The maintenance of the unquestioned supremacy of the House of Commons.
2. Uncompromising resistance to the establishment of a Second Chamber with authority over finance and power to hamper the House of Commons and defeat democratic decisions.
3. The abolition of plural voting.
4. The establishment of full civil and political rights for Civil Servants.
5. Drastic legislation against corrupt practices at elections, and the abolition of practices which confer special political advantages upon wealth.
6. The establishment of complete publicity with regard to Party funds, and the termination of the practice of selling so-called honors.
7. The creation of separate legislative assemblies in Scotland, Wales and England, with autonomous powers in matters of local concern.

3. HOW LABOR IS ORGANIZED

In proportion to population, there are twice as many workers organized into unions in Great Britain as in the United States. The chief strength of the unions lies in transportation, mining engineering, shipbuilding, iron and steel, and the textile industries. In agriculture there are only 30,000 out of a population of 1,300,000 organized. Only approximately 17 per cent. of the women wage and salary earners are organized. In all, there are nearly five and a half million organized into trade unions in Great Britain, of whom four and a half millions belong to seventy unions. In the United States the American Federation of Labor allows only one union for each craft, in Great Britain there can be any number of unions for the same craft. In England the trade union is so firmly established that the employers recognize it and deal with it as an accepted matter of course. The Federation of British Industries united nearly all of the large employers. In its official report it says: "the principles of trades union, representation and

collective bargaining are now fully accepted by the employers." It would be almost unthinkable for a British employer to refuse to talk with the head of a trade union as so many American employers do. This does not mean that the British bank or employer is in sympathy with all the trade union policies or that he does not fight trade union activity, but he does not try to destroy the union itself as is done in America.

In Great Britain in the past few years there has been a movement towards amalgamation, with the result that there are 233 fewer unions to-day through combinations. In the past fifteen years the union of postoffice workers has combined three unions. The Transport and General Works Union has united twenty-six, the Amalgamated Engineering Union ten, and the Iron and Steel Confederation at least eight. The Miners' Federation is composed of twenty different bodies but is almost a single union as far as national negotiations and agreements are concerned.

In England there are three chief types of unions. *First*, the craft union, composed of workers engaged in a single particular skilled calling, no matter in what industry they may be working. With the development of modern industry some craft unions have permitted more or less skilled workers embracing certain allied types of skill to join. For instance, the Weavers Amalgamation covers weavers, winders, warpers, et al. Until the nineteenth century the craft unions were dominant in Great Britain but since that time the industrial union has been growing in strength. The *second type* is the industrial union, embracing all the workers in a single industry or group of related industries. The workers in the mining and building trades are organized on an industrial basis. In the same category falls the National Union of Railway Men which enrolls all those who work on the railway. The *third* type of union is that called General Workers. They are organized without regard to a particular industry or a particular skill. Theoretically they are the unspecialized workers. For example, the General Workers' Union has organized the employees in the confectionery and food trades. In practice there is to-day a tendency to combine the Industrial and General Workers' Unions. For example, the Transport and General Workers' Union is supposed to cover both transport services outside the railroad and a large number of auxiliary industries. It would combine the workers on the roads on the inland waters and the ports as well as such industries as flour milling, quarrying, galvanizing, and fuel.

The Government of the Trade Unions

The basis of the union is usually the branch. There are local unions which have only a single branch, though most of the trade unions have

many local unions or branches. They have found from experience that in union there is strength. A common financial treasury gives them more power to resist the demands of employers. Branches are usually linked together in districts under district committees. The power of these district committees varies in different unions. Sometimes they are extremely limited, where there is a highly centralized union executive. On the other hand, in scattered industries—such as engineering—their power is considerable. Both the branch and the district are united in a central executive committee. The method of selection of executive members varies: sometimes it is done by direct ballot of all the members, sometimes by districts. Usually there is an annual conference which lays down general policies and exercises control under the central executive committee. Each union has different rules in regard to how much power the executive council has, and in case of strike action there is no one way in which a strike is necessarily determined upon. Some unions have tried the initiative and referendum and recall but the great majority rely on the annual conferences to control their executive committee. In most of the unions the growth of important work on behalf of the union has necessitated the employment of paid officers. The salaries, however, are much lower than in the United States, where the head of the trade union may receive anywhere from five to fifteen thousand dollars annually. During the War the workers in a particular place of employment were allowed to elect shop stewards. While this movement had a tendency to disappear once peace had been established, nevertheless shop stewards exist in the boot and shoe, textile, and woodworking industries. In some of the unions the shop stewards are allowed to be represented on the district committee of the union. This has been done, for example, in the engineering union.

Finance

The unions are financed by weekly collection from the members. The size of the contribution varies with the union and the kind of benefits which are given. In some unions the dues cover funeral, retirement, accident, even tool benefits. The returns from 484 trade unions registered by the chief registrar in 1924 representing a membership of 4,500,000 totaled roughly \$56,000,000, of which \$16,000,000 was expended on unemployment benefits (although the Government contributed \$10,000,000 of this), \$5,500,000 was spent for dispute pay, about \$5,000,000 on sickness and accident benefits, \$1,500,000 on funeral benefits, \$5,000,000 on retirement and other benefits, while \$3,500,000 went to federations, congresses, and trade councils. Over \$1,000,000 was expended for the political fund. The

management and expenses of the unions took about \$16,000,000. In the hundred most important trade unions management cost around 3 per cent of the expenditures. The average income per member in the most important unions for 1924 was \$12.50 a year. Very often the trade union is able to recover money for its members. The Transport Union, for instance, in six years recovered \$3,500,000 for members in compensations and other forms of legal redress. Many unions are united into federations of which there are about eighty. This policy has been hastened by the federation of employers. It is particularly necessary where there are so many different unions in the same lines of industrial activity. In addition to the federations there are joint working agreements between unions. For instance, the Transport Union has working agreements with the Engineering Union, the Iron and Steel Trades Confederation, the Distributive Workers, the Railway Men, the Corporation Workers, the General Workers, and six others.

The Trades Union Congress

The Trades Union Congress is the most powerful body in Great Britain, corresponding to the American Federation of Labor, but it includes all of the labor organizations whereas the American Federation of Labor does not include the Railroad Brotherhoods or the clothing workers. The Trades Union Congress was started sixty years ago and has been growing more powerful with the passing of time. In 1900 it created its own political independent party—the Labor Party. The Trades Union Congress is held annually and is composed of about 700 delegates. In such a large body, meeting for a short time, it is inevitable that decisions are reached without much discussion. It has no full-time president or staff and the delegates have votes in proportion to their numbers. In the 1921 Congress a General Council was created which has been nicknamed by the newspapers, the General Staff. It is composed of 32 members elected each year. The unions affiliated with the Congress in 1927 were divided into the 17 groups listed on the next page.

At the 1929 Congress 202 unions representing 3,673,144 members sent delegates.

In addition to the General Council there is a National Joint Council of fifteen members which unites the Labor Party, the Trades Union Congress and the Labor members of Parliament. There are five members from each of these three groups. There is also a joint committee between the General Council and the executive committee of the Labor Party. The General Council is concerned with securing a common policy on all important matters, from legislation to united emergency action. In 1926,

	<i>No. of unions</i>	<i>Members</i>	<i>Seats on the General Council</i>
1. Mining and Quarrying	9	839,000	3
2. Railways ..	3	434,000	3
3. Transport (other than railways).....	8	390,000	2
4. Shipbuilding ..	3	78,000	1
5. Engineering, Founding, and Vehicle Bldg.	24	352,000	3
6. Iron and Steel and Minor Metal Trades..	21	141,000	2
7. Building, Woodworking, Furnishing.....	15	354,000	2
8. Printing and Paper	13	95,000	1
9. Cotton	38	236,000	2
0. Textiles (other than Cotton).....	18	171,000	1
1. Clothing	8	90,000	1
2. Leather, Boot and Shoe.....	5	89,000	1
3. Glass, Pottery, Chemicals, Food, etc.....	17	190,000	1
4. Agriculture	1	30,000	1
5. Public Employees	11	163,000	1
6. Non-Manual Workers	6	59,000	1
7. General Workers	4	453,000	4

t the time of the general strike, the General Council received its authority o take control of the unions not from the Trades Union Congress but rom the principal union officials and executive officers. Because of this he General Council refused to discuss with the Congress its activities in he general strike. As a result the authority of the Trades Union Congress as been somewhat diminished. The Trades Union Congress in its turn s affiliated with the International Federation of Trade Unions which unites some seventeen million workers in various European countries.

The Trades Union Congress and the Labor Party have been very wise n Great Britain in setting up research and educational work. There are four hief departments—the research and information department, the publicity epartment, the department of international affairs, and the legal department. The Congress publishes an annual year-book, weekly notes for peakers, a magazine, monthly bulletin, and various leaflets and journals. t also assumes part of the financial burden of the *Daily Herald*. How mportant these different departments are can be easily seen from any xamination of the Labor Movement in Great Britain. If the unions are egotiating a new wage scale they must of necessity have adequate facts nd they can then turn to the research department. At times of strike they must try to secure fair publicity: this can be done through their publicity epartment. Besides the official research department, there is an independent abor research department supported by various unions and individuals

which has made some very valuable independent studies. The real authority in the trade union movement in Great Britain rests in the national and local trade unions. They have thus far been unwilling to delegate their power to the Trades Union Congress or the General Council. In Great Britain there is also a general federation of trade unions but its only function is that of a national mutual benefit society. It is not now as important as it once was and has had considerable decline in membership. The unions are slowly beginning to organize the "white-collar classes." The postoffice workers have over 65,000 members, the teachers have united in a national union of teachers which has actually gone so far on several occasions as to support teachers' strikes.

With the emergence of a Labor Government in Great Britain it is probable that the organization of the workers will proceed even more rapidly than in the past although the tendency will be for many of the workers to look for political rather than industrial amelioration.

4. LABOR'S OWN STORY

In the following four brief statements the voice of British labor can be heard speaking for itself. First comes an appeal of a single union for the necessity of organization, next a brief sketch of the rise of the Trades Union Congress, and then its objects and powers.

From all this the importance of the Trades Union Congress can be easily appreciated.

National Union of General and Municipal Workers, 1924

FOREWORD TO RULES

Fellow Workers.—Trade Unionism has done excellent work in the past, and in it lies the hope of the workers for the future; that is, the Trade Unionism which clearly recognizes that to-day there are only two classes, the producing Working Class, and the possessing Master Class. The interests of these two classes are opposed to each other. The Masters have known this for a long time; the workers are beginning to see it.

They are beginning to understand that their only hope lies in themselves, that from the Masters as a class they can expect no help, and that divided they fall, united they stand. This is why the Union was formed; it embraces every kind of labor, and admits all general workers, women as well as men, on an equal footing.

The immediate objects of this Union are the improvement of the material conditions of its members; the raising them from mere beasts of

burden to human beings; the making brighter and happier the home of every worker; the saving of little children from the hard, degrading, bitter life to which they are condemned to-day; the dividing more equally between all men and women the tears and laughter, the sorrows and the joy, the labors and the leisure of the world.

It is important that all members should understand the necessity for and the aims of this Union; that they should accept and loyally carry out its rules; that they should remember that the interests of all workers are one, and a wrong done to any kind of labor is a wrong done to the whole of the Working Class, and that victory or defeat of any portion of the Army of Labor is a gain or a loss to the whole of the Army, which by its organization and Union is marching steadily and irresistibly forward to its ultimate goal—the Emancipation of the Working Class.

That emancipation can only be brought about by the strenuous and united efforts of the Working Class itself.

Workers, Unite!

The Story of the Trades Union Congress, published by the Trades Union Congress, 1925

Over a period of 100 years British Trade Unionism presents a record of continuous growth and expansion. For more than half that period the Trades Union Congress has played an increasingly important part in the development of industrial organization and policy. Before its advent the Trade Union Movement possessed no central organ to direct its course or to coördinate and unify its activities. Its appearance on the scene marks the beginning of a profoundly significant phase of working class history. The results of its work are visible not only in the enormous increase in the power and influence of the organized workers, but in the enhanced authority and prestige of the Trades Union Congress itself. Its right to speak and act in the name of the organized millions of trade unionists is now unchallenged. It has acquired its right of leadership by the exercise of powers vested in it by the affiliated Unions. These powers have been enlarged and extended as the Unions themselves have come to recognize that the furtherance of the aims and interests of the Trade Union Movement as a whole calls for unified leadership and the strongest possible concentration of the Movement's resources. The process has been a gradual one, instinctive rather than conscious in its earlier stages; but latterly the Trade Unions have been able to discern more clearly the nature of this evolution and the goal to which it tends.

When the Trades Union Congress was founded, two generations ago, it gave little promise of becoming the authoritative and influential body that we know to-day. It was called into being to meet a special emergency,

arising from the renewal of attacks upon the right of the working people to combine for the purpose of collective bargaining. Forty years of progress, from the date of the repeal of the Combination Laws in 1824, which swept away no fewer than thirty-four Acts of Parliament, the fruit of five centuries of repressive legislation, had placed the Trade Unions in a strong position. Reorganization, consolidation and amalgamation of the local trade clubs had brought into existence powerful national Unions of the new type represented by the engineers' society, the carpenters' organization and other big national bodies. Industrial warfare on a large scale followed the rise of the national unions, whose activities excited the suspicion and hostility not only of the employers but of the Government as well.

Under the pretext of investigation allegations of intimidation and outrage implicating Unions in Sheffield and Manchester, a Royal Commission was appointed in 1867 to inquire into the whole question of Trade Union organization and method. Although the Trade Union leaders were able, after much difficulty, to place upon the Commission two men (Frederic Harrison and Thomas Hughes) whom they could trust to deal fairly with the Unions, there was only too much reason to fear that the Commission was intended to supply the Government with arguments for the suppression of Trade Unionism, or at any rate to furnish an excuse for the drastic curtailment of the very small amount of liberty enjoyed by the Unions under the existing law. Legal decisions affecting the safety of Trade Union funds also excited great uneasiness among the Trade Union leaders. It was at this critical stage in the development of British Trade Unionism that the Manchester and Salford Trades Council took the initiative in summoning representatives of the entire Trade Union Movement to a national Congress. . . .

Ultimate Aims

More and more as time goes on, Congress will give thought to the problem of making Trade Unionism, which has developed in this country experimentally without conscious direction from a common centre, into a unified and scientifically organized movement. That is the aim of its policy of amalgamation and federation which the General Council has been pursuing among the various Unions covering particular industries and trades. For the fullest possible extension of this policy, as for the strongest possible action in industrial disputes, and for the abolition of wasteful overlapping, sectionalism, and harmful rivalry between Unions, the General Council will, under Congress direction, be responsible. The course of events over a period of nearly sixty years, since Congress was founded, provides the evidence that the Trade Union Movement is not a piece of dead mechanism, but a vital organic force proceeding to still higher forms of organization in accordance with the laws of its own being.

*Objects of the Trades Union Congress**

Objects—(a) The objects of the Congress shall be to promote the interests of all its affiliated organizations and generally to improve the economic and social conditions of the workers.

(b) In furtherance of these objects, the General Council shall endeavor to establish the following measures, and such others as the Annual Meeting of Congress may from time to time approve:

1. Public Ownership and control of natural resources and of services—
 - (a) Nationalization of land, mines, and minerals.
 - (b) Nationalization of railways.
 - (c) The extension of State and municipal enterprise for the provision of social necessities and services.

(d) Proper provision for the adequate participation of the workers in the control and management of public services and industries.

2. Wages and hours of labor—

- (a) A legal maximum working week of 44 hours.
 - (b) A legal minimum wage for each industry or occupation.

3. Unemployment—

(a) Suitable provision in relation to unemployment, with adequate maintenance of the unemployed.

(b) Establishment of training centers for unemployed juveniles.

(c) Extension of training facilities for adults during periods of industrial depression.

4. Housing—

Provision for proper and adequate housing accommodation.

5. Education—

Full educational facilities to be provided by the State from the elementary schools to the universities.

6. Industrial accidents and diseases—

Adequate maintenance and compensation in respect of all forms of industrial accidents and diseases.

7. Pensions—

(a) Adequate State pensions for all at the age of 60.

(b) Adequate State pensions for widowed mothers and dependent children and mothers whose family breadwinner is incapacitated.

Powers of the General Council of the Trades Union Congress

Duties of General Council.—(a) The General Council shall transact the business in the periods between each Annual Congress, shall keep a watch on all industrial movements, and shall, where possible, coördinate industrial action.

* Standing orders of the Trades Union Congress, 1928.

(b) It shall watch all legislation affecting labor, and shall initiate such legislation as Congress may direct.

(c) It shall endeavor to adjust disputes and differences between affiliated unions.

(d) It shall promote common action by the Trade Union Movement on general questions, such as wages and hours of labor, and any matter of general concern that may arise between Trade Unions and Trade Unions, or between employers and Trade Unions, or between the Trade Union Movement and the Government, and shall have power to assist any union which is attacked on any vital question of Trade Union principle.

(e) It shall assist Trade Unions in the work of organization, and shall carry on propaganda with a view to strengthening the Trade Union Movement, and for the attainment of any or all of the above objects.

(f) It shall also enter into relations with the Trade Union and Labor Movements in other countries with a view to securing united action.

(g) In the event of a legal point arising which in the opinion of the General Council (after consultation with Counsel) should be tested in the House of Lords in the general interest of Trade Unionism, the Council shall be empowered to levy the affiliated societies *pro rata* to provide the necessary expenses. Any society failing to pay the levy shall be reported to Congress.

(h) In order that the Trade Union Movement may do everything which lies in its power to prevent future wars, the General Council shall, in the event of their being a danger of an outbreak of war, call a special Congress to decide on industrial action, such Congress to be called, if possible, before war is declared.

(i) The General Council shall have power, whenever it deems necessary, to convene a Special Congress to deal with any contingency that may arise.

(j) The General Council shall prepare a report of its work for submission to the Annual Meeting of Congress. The report shall contain a list of the General Council meetings with dates, and also names of those members who were present at such meetings. The Standing Orders of Congress and the General Council shall be published with each Annual Report of the proceedings of Congress.

Industrial Disputes

(a) It shall be an obligation upon the affiliated unions to keep the General Council informed with regard to matters arising as between the unions and employers, and/or between one union and another, in particular where such matters may involve directly or indirectly large bodies of workers. The General Council shall, if they deem necessary, disseminate the information as soon as possible to all unions in the industry concerned

which are affiliated to the Trades Union Congress, and which may be either directly or indirectly affected.

(b) The general policy of the Council shall be that unless requested to do so by the affiliated union or unions concerned, the Council shall not intervene so long as there is a prospect of whatever difference may exist on the matters in question being amicably settled by means of the machinery of negotiations existing in the trades affected.

(c) In the event, however, of negotiations breaking down and the deadlock being of such a character as to involve directly or indirectly other bodies of workpeople affiliated to the Trades Union Congress in a stoppage of work and/or to imperil standard wages or hours and calling representatives of the unions into consultation, and use its influence to effect a just settlement of the difference. In this connection the Council having ascertained all the facts relating to the difference, may tender its considered opinion and advice thereon to the union or unions concerned. Should the union or unions refuse the assistance or advice of the Council, the Council shall duly report to Congress.

(d) Where the Council intervenes, as herein provided, and the union or unions concerned accept the assistance and advice of the Council, and where despite the efforts of the Council, the policy of the employers enforces a stoppage of work by strike or lock-out, the Council shall forthwith take steps to organize on behalf of the union or unions concerned all such moral and material support as the circumstances of the dispute may appear to justify.

IV. POST-WAR CONSEQUENCES

I. THE MAIN EVENTS

Since the World War we might divide the history of the labor movement into three periods: first, the period up to the fall of the first Labor Government; second, the period of control by the Conservative Party; and, third, the period beginning in 1929 when the Labor Party again assumed power.

During the first period there was a brief time of prosperity, during which trade union membership greatly increased. This was followed by depression. The employers assumed a vigorous offensive against the working class, endeavoring to lower wages and lengthen hours.

During the War labor had permitted itself to be drawn into a Coalition Government. In 1918 labor again became independent and withdrew its ministers from the government. In the election of December, 1918, the Labor Party polled 2,244,945 votes but secured only 57 representatives. In 1920 the Labor Party advocated a capital levy but by 1922 the emphasis

had turned to the cure of unemployment. The by-elections continued to favor labor and before the end of Parliament there were 75 representing labor. In the election of 1922 labor secured 4,236,733 votes and elected 142 members, thus becoming the official opposition. In December, 1923, another election was held and this time labor elected 191 members and received a vote of 4,348,379. The Conservative Government, though in a minority, met Parliament and was defeated 328 votes to 256 on January, 1924. The first Labor Government was then formed, with Ramsay MacDonald as Premier. Naturally, since labor had but one-third of the House, it could not carry out many of its proposals. The party did try to aid unemployment, however, and to help in housing, and it settled the Irish Boundary dispute. In its foreign policy it was unusually successful, following a program of international coöperation and peace. At the London Conference it settled the major outstanding reparation difficulties. It also negotiated two treaties with Russia, which were not ratified by its successor. The Labor Government was defeated October 8, ostensibly on its handling of a Communist prosecution but actually on its Russian policy. At the election which followed, the Conservatives published at the last minute a forged letter purporting to be written by the Russian Communist Zinoviev which presumably influenced the election and gave them the majority. In spite of this labor received 5,551,549 votes, although its membership fell to 151.

The general character of the industrial life in Great Britain during this period has altered comparatively little but there has been a tendency to even up income. C. Delisle Burns has decribed the situation:¹⁰

"In England and Wales in 1921 about seventeen million persons were 'occupied' of whom over two million were in manufactures. Within this occupied population only 3.7 per cent are employers, 63 per cent are independent workers and 90 per cent are 'employed.' This is not abnormal among nations, for everywhere those who work under direction are in the overwhelming majority. But in Great Britain if not elsewhere most of these are sufficiently secure and satisfied, if not enthusiastic nor even conscious supporters of the system under which they live. Apart therefore from the inevitable change of natural circumstances policy is not likely to be radical if the support of the majority is required to make it so. And radical change is even more unlikely.

"The income of Great Britain is still very unevenly distributed: but a slight change has occurred since 1911. The rich are slightly less rich than they were: and the wage-earning classes have slightly more individually. There were in 1924, however, about 90,000 persons with incomes exceeding £2,000 a year: among whom 138 had incomes exceeding £100,000.

"Rates of taxation have changed very greatly since 1913-14 and they now

¹⁰ C. Delisle Burns, *A Short History of the World* (1928), p. 267.

place more of the burden upon the very rich. Thus in 1913-14 an earned income of £100 paid about £5 and an earned income of £50,000 paid £4,000; whereas in 1925-26, the same incomes paid £12 and £22,000, respectively. The change in percentages of incomes has been from 5.4 per cent to 11.3 per cent for the £100 income and from 8.4 per cent to 44 per cent for the £50,000 income. In 1925-26 an earned income of £50,000 paid £22,242 in taxes every year."

On May 30, 1929, another election was held and the Labor Party secured 287 members, later increased by one through the transfer of allegiance of one member. The House of Commons then was made up as follows: Labor 288, Liberals 58, Conservatives 260 and independents 9. Among the achievements of the Labor Government since 1929 have been: the recognition of Russia; the withdrawal of troops from the Ruhr; the naval limitation treaty; a declaration that India must soon have "Dominion Status"; the passage of a law which declared that on April 1, 1931, the school-leaving age shall be raised to 15 years; the extension of widows' pensions to include half a million more recipients at an extra cost in 1930 of forty million dollars.

2. LABOR IN OFFICE ¹¹

The Labor Government of 1924 assumed office under very difficult conditions. It held its position purely upon Liberal sufferance. Any attempt to apply a Socialist policy meant immediate defeat, followed either by a new election, or by a Liberal-Conservative Coalition. The pursuance of a policy which would command Liberal support was likely, on the other hand, to be productive of very scanty results and to provoke strong criticism among its own followers. It elected, however, to follow the latter policy, and to content itself with such small measures as it could carry through with Liberal support. Before its fall in October, the Labor Government passed, besides Philip Snowden's "Free Trade" Budget, four measures of importance—John Wheatley's Housing Act, Noel Buxton's measure restoring the legal minimum wage in agriculture, an Act raising Old Age Pensions, and an amendment of the Unemployment Insurance system. In addition, it reversed the policy of drastic economies in education and other social services, inaugurated by its predecessors in consequence of the slump, and, after granting formal recognition to Russia, negotiated, but did not survive to ratify, a formal Russian Treaty. It also carried through the famous "Dawes Plan" for the stabilization of German finances under Allied control, and attempted, without much success, to persuade the nations of Europe to pursue a more sociable and pacific policy. As an earnest of its good intentions, it restricted naval construction, and suspended work upon the new Singapore naval base. But its term of

¹¹ Reprinted from G. D. H. Cole, *A Short History of the British Working Class Movement*, Vol. III, pp. 192-196. New York, 1927.

office was too short for the Labor attitude to foreign policy to exert any really considerable effects.

Considering the difficulties in its way, the Labor Government of 1924 really achieved a good deal. Indeed, if we assume the rightness of the policy of assuming and trying to retain office at all under the conditions which then existed, it could not well have done more. For, apart from actual opposition, it had to face the impossibility of "managing" a House of Commons in which its supporters were in a serious minority. The conditions offered the maximum of opportunity for obstruction; and they were exploited to the full in order to delay any business which the Labor Government wished to advance. Ramsay MacDonald and his colleagues may have been right or wrong in the general policy which they followed. Whatever they did was bound to appear wrong at the time to a large number of their followers, and to look wrong, or at best insignificant, in historic retrospect. The Labor Government has been given less than due credit for what it achieved. Philip Snowden's Budget was, perhaps, no more than a perfectly competent exercise in orthodox Free Trade economics; but the Wheatley Housing Act, by far the most important measure of the session, deserves to rank as the initiation of a new policy in social reform. Though the Government disappointed its supporters, that was largely because they were disposed to judge it by an abnormally high standard, and also because of the unfortunate blunders which marred its last days of office. In the difficult parliamentary situation, the Government's position was complicated by a recurrence of industrial troubles. The very existence of a Labor Government, coupled with a distinct, though not very great, improvement in the trade situation, was enough to cause a considerable extension of industrial disputes. A big strike on the railways was actually in progress when the Government was formed. The National Railway Wages Board under the Railways Act of 1921 had decreed considerable adverse changes in railway wages and conditions, particularly at the expense of the locomotive grades. These changes were accepted by the National Union of Railwaymen; but the rival Union, the Associated Society of Locomotive Engineers and Firemen, struck against them, gaining small concessions, but on the whole failing in face of the maintenance of services by N. U. R. members. In February came a national dock strike, the aftermath of the troubles of 1923; and this time the men were successful in securing advances in wages. Strikes of tramwaymen and busmen followed in March, and were also successful; but an unofficial stoppage on the Tube railways in June ended in defeat. Meanwhile, in April, came yet another national lock-out in the shipyards, arising out of a local wage dispute at Southampton, and ending in the reference of the dispute to arbitration.

In May, the threatened national dispute in the coal mines ended without a stoppage, the miners securing an agreement which raised their wages

considerably above the minimum level fixed in 1921. The new settlement, however, was only to last for a year, and was the direct precursor of the troubles of 1925-26. In July came a big builders' strike, met by the employers with a national lock-out, and ending in a compromise on both hours and wages. Also, there were throughout the year a great many minor disputes. The number of strikes rose from 628 in 1923, to 710 in 1924, and of strikers from 405,000 to 613,000. In addition, a large number of workers started negotiations for improved conditions, with indifferent success. Except in the mines, which had been restored to temporary prosperity by the Ruhr occupation, the wage changes of the year were mostly small.

In October, the Government gave an opportunity to the Liberals, who had been growing more and more restive, to trip it up. It first started, and then as suddenly dropped, a prosecution of J. R. Campbell, the Communist editor, for certain articles in his paper, *The Workers' Weekly*. In itself, the incident was trivial; but it coincided with the negotiations over the Russian Treaty, against which most of the newspapers, and many of the Liberals in Parliament, were up in arms. The Campbell case, woefully mismanaged by the Cabinet, furnished a most convenient chance for turning the Government out of office. Defeated in the House of Commons, Ramsay MacDonald dissolved Parliament on October 9th.

In the General Election which followed, one thing—the famous “Red Letter”—overshadowed all others. In the midst of the election the Foreign Office suddenly despatched to the Soviet Government a strong note of protest against its subversive propaganda in Great Britain, producing as evidence a letter of instructions alleged to have been sent by M. Zinoviev, on behalf of the Communist International, to the British Communist Party. This note came as a bombshell, especially as MacDonald was himself Foreign Secretary and presumably responsible for it. Labor speakers, till then actively defending the Russian Treaty, found themselves apparently repudiated by their leader, and knew not what to say. The Communists stated that the “Red Letter” was a forgery, and this came later to be generally believed, at least in Labor circles. But for the time being, MacDonald remained mysterious and equivocal, and the “Red Letter” served both to bewilder his supporters and to rally hundreds of thousands of slack or doubtful voters to the Conservative cause. After the election, a Labor Cabinet Committee reported that there was nothing to show whether the letter was genuine or not. But by then all was over except the shouting. Labor lost 42 seats and the Liberals actually 119 out of 158. The Conservatives gained 152, and returned to Parliament with a huge clear majority over both the other parties. Immediately after the election Ramsay MacDonald resigned, and Baldwin resumed office.

The Labor Government thus ended in inglorious fiasco, as the result of a series of muddles, the making of which is still wholly beyond understanding. Their followers were already restive before these events, and naturally

they added to the vehemence of criticism. It seems probable that, in deciding to attempt to govern with Liberal support, MacDonald, whether he was wise or unwise, correctly interpreted the wish of the majority of his supporters. But the most active, though by no means the most numerous, section of the Labor Party consisted of the Socialists organized in the I. L. P.¹² MacDonald was himself the old leader of the I. L. P., and his Government was largely drawn from its ranks. But the I. L. P. as a body, finding that the Government could not, or would not, pursue a definitely Socialist policy, became growingly critical, and came, especially after 1924, to form a sort of organized "left wing" opposition within the Labor Party's ranks. From the episode of Labor in office, in 1924, certainly dates the emergence of a new type of "left wing" Socialism, hostile to Communism on the one hand and to moderate Labor on the other, and grouping itself partly in the I. L. P. and partly round the one really individual figure in the British working-class movement of to-day—George Lansbury. "Socialism in Our Time" became, after 1924, the slogan of these two groups, whose activity—and especially that of *Lansbury's Labor Weekly*, helped to prepare the way for the industrial militancy of 1926.

Labor's first brief term of office brought neither the ruin prophesied nor the benefits for which its supporters had hoped. Its chief result was, both by encouragement and by reaction, to clear the ground for the events of the next two years.

3. THE GENERAL STRIKE

(a) *The Coal Question*¹³

The coal question has been described earlier in this book as the symbolic issue of the post-war labor struggle. The successive troubles in the coal industry were in essence struggles between Capitalism and Socialism as rival social policies and attitudes. This happened, both because the Miners' Federation was incomparably the strongest Trade Union in Great Britain, and because the coal industry was buffeted about above all others by the ups and downs of post-war economic fluctuations. It should be added that miners and mineowners alike are stubborn folk, tenacious and unadaptable, and therefore out of their element in a world of rapid change needing above all the constant application of new methods and new ideas.

After the disastrous struggle of 1921, the coal industry settled down to bad times. Wages, under the dictated terms of the 1921 agreements sank very low; but the beaten miners were in no position to offer any resistance. Then, in 1923, the Ruhr occupation brought a purely temporary prosperity. Coal exports rose higher than in the record year, 1913; and miners' wages rose in sympathy as high as the unfavorable terms of 1921

¹² Independent Labor Party.

¹³ Reprinted from *A Short History of the British Working Class*. By C. D. H. Cole, Vol. III, pp. 203-206. New York, 1927.

would allow. Under the influence of the revival, the Miners' Federation set out to negotiate an improved agreement. This the coalowners at first refused; but finally, as we have seen, a new agreement was signed in 1924, providing for a substantially higher minimum wage. There can be little doubt that the principal reason for the coalowners' acceptance of this was the fact that a Labor Government was in power, and would, in default of their agreement, have framed a new Miners' Minimum Wage Act, raising the wages by law. The owners, therefore, signed; but the operation of the new agreement was limited to a single year.

Long before its expiry in the summer of 1925, both the Labor Government and the temporary prosperity of the coal trade were over. The owners, with criminal stupidity, had done nothing to improve the efficiency of the industry in preparation for the bad times. Exports and export prices were falling fast; and the coalowners, in order to save themselves from their own folly, were demanding, not only a return to the wage conditions of 1921-24, but also the repeal of the Seven Hours Act of 1919, and the resumption of the eight-hour day. Negotiations reached a complete deadlock; and it became clear that a national coal stoppage was imminent.

In deciding to resist firmly the owners' claims, the miners were well aware that the economic conditions were against them. The owners, in face of depression and falling prices, would not greatly mind a stoppage, whereas the miners had not yet fully recovered from the defeat of 1921. In these circumstances, the Miners' Federation appealed to the General Council for help. Arguing that the coalowners' attack was only the first move in a general onslaught on wages and working hours, they urged the whole of the Trade Union movement to make common cause with them in resisting the demands, and in insisting on a solution of the coal industry's recurrent troubles.

The Trade Unions were, indeed, at this time widely threatened with fresh attacks on their standards and conditions. The slight upward movement of 1924 had proved to be purely transitory, and trade generally was again on the down grade. Employers were everywhere arguing that labor costs were too high, and pressing for lower wages as a means of reducing them. Instead of improved efficiency of management, low wages were, as usual, preached as the cure for all troubles. Moreover, among the workers, what counted most of all was an acute sense of shame for the events of 1921. Then, it was felt, the other Unions had left the miners shamefully in the lurch, and "Black Friday" was largely blamed for the working-class tribulations of subsequent years. It was felt to be impossible to leave the miners to fight their battle alone, or to urge acceptance of the owners' drastic terms. In July, 1925, the Trades Union Congress pledged its full support to the Miners' Federation, to the length, if need were, of a general sympathetic strike.

This threat was at once effective in causing the Government to inter-

vene. Baldwin proposed a temporary subsidy to the coalowners in order to allow the existing wages and conditions to be maintained. This subsidy was to continue while a new Royal Commission investigated the immediate issues in dispute and the position of the coal industry as a whole, and prepared a scheme for dealing with both. Though there was trouble over the refusal to allow any Labor representative to sit on the Commission, the offer was finally accepted, and all threats of stoppage withdrawn pending its report.

Thus, for the fourth time since the War, a tribunal of investigation set to work to study the problem of the coal mines. The Sankey Royal Commission of 1919 had definitely recommended, by a majority, nationalization with some measure of workers' control; but its advice had been rejected by the Lloyd George Government. The Buckmaster Inquiry of 1924 and the Macmillan Inquiry of 1925, both under the Industrial Courts Act, dealt only with wages and hours, and did not touch the root problems of the industry. But now the Samuel Commission, composed of two well-known Liberals and two big employers, was instructed to go into the whole question afresh.

It was obvious from its composition that the new Commission would not recommend nationalization of the mines, or any drastic interference with their private control. It did, in fact, propose nationalization of royalties, organization of research, and encouragement of colliery amalgamations designed to improve efficiency, to be backed up by compulsory powers if after some years voluntary methods definitely failed. As a means of dealing with the immediate situation, it suggested wage reductions considerably less than the owners claimed. The increase of working hours it rejected, unless the miners preferred this to the wage reductions otherwise proposed. The coal subsidy, which had been admittedly fixed on the most idiotic basis imaginable, so as to put large sums into the pockets of prosperous owners who did not need them, was to be discontinued.

The Commissioners' Report, issued early in 1926, pleased neither party. The miners repeated their slogan, "Not a penny off the pay, not a second on the day," and called on the Trade Union Movement as a whole for support. The owners reiterated their demand for heavier reductions in wages and for longer hours. The Government, despite the again and again proved necessity for drastic reorganization, and the manifest incompetence of the coalowners, only undertook to adopt the Report on condition that it was accepted by both parties to the dispute—a condition which it knew would not be fulfilled. After a series of futile negotiations a complete deadlock was reached. The miners renewed their appeal to the Trades Union Congress for support, and the General Council found that it must either repeat its strike threat, or ignominiously climb down. A general conference of Trade Union Executives was called, and voted with practical unanimity in favor of strike action. Eleventh-hour negotiations with the Govern-

ment failed; and on April 30th, 1926, the miners were locked out. On May 4th the sympathetic "General Strike" began. Already it had been made clear that the Government and the coalowners were hand in glove.

(b) *General Strike Order Issued by the General Council Dated
April 30, 1926*

Trades Union Congress General Council

THE MINING SITUATION

Proposals for Coordinated Action of Trade Unions

(It should be understood that memoranda giving detailed instructions will be issued as required.)

Scope. The Trades Union Congress general council and the Miners Federation of Great Britain, having been unable to obtain a satisfactory settlement of the matters in dispute in the coal mining industry, and the government and the mine owners having forced a lock-out, the general council, in view of the need for coordinated action on the part of affiliated unions in defense of the policy laid down by the general council of the Trades Union Congress, directs as follows:

Trades and Undertakings to Cease Work. Except as hereafter provided, the following trades and undertakings shall cease work as and when required by the general council:

Transport, including all affiliated unions connected with Transport, i.e., railways, sea transport, docks, wharves, harbors, canals, road transport, railway repair shops and contractors for railways, and all unions connected with the maintenance of, or equipment, manufacturing, repairs, and groundsmen employed in connection with the air transport.

Printing Trades, including the Press.

Productive Industries

(a) *Iron and Steel.*

(b) *Metal and Heavy Chemicals Group.*—Including all metal workers and other workers who are engaged, or may be engaged, in installing alternative plant to take the place of coal.

Building Trade.—All workers engaged on building, except such as are employed definitely on housing and hospital work, together with all workers engaged in the supply of equipment to the building industry, shall cease work.

Electricity and Gas.—The general council recommend that the trade unions connected with the supply of electricity and gas shall cooperate with the object of ceasing to supply power. The council request that the executives of the trade unions concerned shall meet at once with a view to formulating common policy.

Sanitary Service.—The general council direct that sanitary services be continued.

Health and Food Services.—The general council recommend that there should be no interference in regard to these, and that the trade unions concerned should do everything in their power to organize the distribution of milk and food to the whole of the population.

With regard to hospitals, clinics, convalescent homes, sanatoria, infant welfare centers, maternity homes, nursing homes, schools, the general council direct that affiliated unions take every opportunity to ensure that food, milk, medical and surgical supplies shall be efficiently provided.

(c) *Anti-Strike Handbill Issued by the Government*

THE GREAT "HOLD-UP" STORY OF THE STRIKE

WHAT IS THE GENERAL STRIKE ABOUT?

The story is soon told.

I. Eight months ago the Government appointed a Royal Commission to report on the coal industry. It also gave a subsidy to keep the industry going while its Commission sat.

II. The Commission reported that "a disaster is impending over the industry," as 7 out of every 10 tons of coal are being produced at a loss. It also saw a revision of wages was needed to save the industry.

III. The Government accepted the Report. The Coal Owners have accepted it. The miners refused to work a second longer or take a penny less, even as a *temporary* measure to prevent ruin.

IV. The Government strove day and night to secure an agreement. While negotiations were going on, the Trade Union Council (without consulting the workers) issued notices for a General Strike, which would paralyse transport, factories, public services, printing works, and the entire business of the country.

V. Under this intolerable threat of a national "hold-up" the Government stood firm. It told the T.U.C. that they would not renew negotiations until the General Strike was called off.

VI. The Government then put in force its plans for maintaining food and milk supplies. It called upon all loyal people to offer help, to stand together in meeting the "surrender or starve" challenge.

VII. As Mr Baldwin said: "The Government found itself challenged with an alternative Government." This alternative Government—this Soviet—is a small group of trade union leaders. It represents only a small section of the people. It did not even consult that section before it held its pistol at the head of the Government.

THE GOVERNMENT STANDS FOR THE PEOPLE

THE PEOPLE WILL STAND BY THE GOVERNMENT

(d) *Letters Sent to the Prime Minister*

How conciliatory was the General Council of the Trades Unions can be appreciated from the following letters sent to the Prime Minister:¹⁴

1 May, 1926

To the Right Hon Stanley Baldwin, M. P.,
10, Downing Street, Whitehall, S. W. 1.
Dear Sir,

Mining Lock-out: Essential Foodstuffs.

I am directed to inform you that in the event of the strike of unions affiliated to the Trades Union Congress taking place in support of the miners who have been locked out, the General Council is prepared to enter into arrangements for the distribution of essential foodstuffs.

Should the Government desire to discuss the matter with the General Council they are available for that purpose. The General Council will be glad to learn your wishes in this respect.

Yours faithfully,

Walter M. Citrine (Acting Secretary).

1 May, 1926

To the Right Hon. Stanley Baldwin, M.P.,
10, Downing Street, Whitehall, S. W. 1.
Dear Sir,

Mining Lock-out.

I have to advise you that the Executive Committees of the Trade Unions affiliated to the Trades Union Congress, including the Miners' Federation of Great Britain, have decided to hand over to the General Council of the Trades Union Congress the conduct of the dispute, and the negotiations in connection therewith will be undertaken by the General Council.

I am directed to say that the General Council will hold themselves available at any moment should the Government desire to discuss the matter further.

Yours faithfully,

Walter M. Citrine (Acting Secretary).

(e) *The Collapse of the General Strike*¹⁵

Up to the very last moment, there was a lively hope among the Trade Union leaders that the trouble would be averted. In order to avoid any

¹⁴ National Strike: Special Conference: Report of Trades Union Congress, p. 37.

¹⁵ Reprinted from *A Short History of the British Working Class Movement*, by G. D. H. Cole, Vol. III, pp. 207-212 New York, 1927.

appearance of "provocative" action, they made practically no preparations for the strike, whereas the Government, with no such scruples, was fully prepared at almost every point. The Unions, indeed, were deceived by the apparent effectiveness of their mere threat to strike in the previous year. They thought that Baldwin had capitulated, when in fact, as the subsequent events clearly showed, his Government had only been gaining time. They thought, if not that the walls of Jericho would fall instantly at the blast of their trumpet, at least that Baldwin, that constant preacher of "goodwill," would meet them half-way. Their hopefulness seems to have lasted through the final negotiations, up to the very moment when, on the flimsy pretext that the *Daily Mail* machine men had refused to print a leading article hostile to the strike, the Cabinet banged the door of the conference room in their face. Then they returned in a bewildered condition to Eccleston Square, to carry into effect a threat which frightened those who made it, and one they were by no means in readiness to implement.

The Trade Unions had declared war; but their leaders had not meant to be taken at their word. The Government took them at their word. The shilly-shallying Baldwin was swept aside and the Tory militants, headed by Winston Churchill, took charge of the situation.

Strictly speaking, the "General Strike" was not a general strike at all. The General Council called out only the "first line" of the Labor forces—the railwaymen and transport workers, the iron and steel workers, the builders and the printers. The rest were held in reserve. The aim was to stop transport and certain other key groups, and to shut down the Press, mostly vehement in its denunciation of the strike as a declaration of war against the community. Few doubt now that the stopping of the Press was a mistake. It gave Churchill the chance for his hate-breathing, inflammatory, vile-minded *British Gazette*, and the Government, through its command of broadcasting, almost complete control of the dissemination of news. It enabled Churchill, for example, almost wholly to destroy the effect of an appeal for peace issued by the Archbishop of Canterbury. It left the strikers largely without news; for there were great difficulties in the circulation of the *British Worker*, the temporary paper which replaced the *Daily Herald*. And this, in any case, hardly reached the outside public at all. Above all, it was the one feature of the strike that really made the middle classes believe Churchill's ravings about "revolution." The absence of the morning newspaper was, for the middle-class householder, the symbol of working-class revolt. It is, however, easier to see such errors after the event.

The response to the strike call was practically universal. The manual workers in the trades involved came out solidly, and remained, with only insignificant breakaways, solid to the end. A very high proportion of the non-manual workers came out with them, and remained hardly less solid.

There can be no doubt that the completeness of the stoppage astonished, not only the Government, but hardly less the strike leaders themselves. Everywhere, local Councils of Action were formed to take charge of the situation; and, despite the lack of preparation, effective strike machinery was everywhere improvised with extraordinary skill and rapidity.

The Government, for its part, adopted throughout a highly provocative line, in strong contrast to the counsels of peace, moderation and order constantly issued by the strike leaders. It armed special constables in thousands, called out troops and reservists, and issued what was practically an incitement to violence in the form of a promise of full support to any act these might commit in repressing the strike. It arrested and imprisoned hundreds of strikers under the Emergency Powers Act, which was at once brought into use. And the tone of its pronouncements, alike in the *British Gazette* and elsewhere, was as provocative as could have been. Meanwhile, with the aid of a host of volunteers, it organized emergency services for the transport of food and other commodities. The power of the motor-lorry in supplying for a short period the place of the railway was plainly demonstrated; and the possibility of running road services with chance volunteers, as the railways could not be run save to a very small extent, showed clearly the impossibility under post-war conditions of making even the most extensive strike an effective instrument of national blockade. Doubtless, if the struggle had been protracted, the emergency services would have begun to break down. But no "general strike" is ever likely to last long; and for the purpose in view the Government's methods were certainly efficient enough.

From the first the strikers' only real chance of success lay in frightening the Government into surrender or persuading it into compromise. The temper of the Government throughout the dispute excluded the latter solution, which the strike leaders would, of course, have welcomed. The struggle therefore became one of *morale*—it was a question of the side that would crumple up first. But, with Winston Churchill in command and thoroughly enjoying the "scrap," the Government was not likely to crumple up. Baldwin might have done so, but he had been flung into a corner until he was needed to pronounce the final benediction. All things considered, the strikers had from the first little real chance of winning. Their only chance lay in the emergence of a peace movement so strong as to overthrow Churchill's command of the situation. But this could hardly develop in face of the shutting down of the ordinary means of publicity.

The rank and file of the strikers, however, had little understanding of the situation at headquarters. They had struck, and they were standing firm, and they did not see why they should not win. They had even, for the most part, little understanding of the class-war spirit that had been stirred up against them. Most of them were striking out of loyalty to the

movement, and in order to support the miners on what seemed to them a purely industrial issue. There were revolutionaries among them, no doubt; but these were a tiny minority, and even they steered clear of talking revolution to the main body of the strikers. The rest did not understand the savage rally of the men of property round the sacred ark of the capitalist covenant that their uprising had provoked. They did not see why Churchill was shouting about revolution when they only wanted him to give the miners a "square deal."

The strike leaders, meanwhile, were in a vastly complicated state of panic. They were afraid of their own followers—afraid at the same moment that they would drift back to work and that they would get out of hand and imitate Churchill by giving the strike a revolutionary turn. They were afraid of the Government and afraid of themselves, afraid to lead and afraid to admit failure.

Their position was admittedly difficult. They had called the strike (which they had at most only half meant to call at all) in a last moment hurry and without reaching any clear understanding with the miners as to its objects. It was all very well to talk of a "square deal"; but what sort of deal was square, and how much squareness could be secured in face of the coal industry's economic plight, the blockheadedness of the coal-owners, and the Government's refusal to take reorganization in hand? The need for a precise definition of objects became evident. The General Council wanted to work for a compromise on the lines of the Coal Commission's Report; but Herbert Smith and A. J. Cook, the miners' leaders, met every suggestion with a fresh incantation of their formula, "Not a penny off the pay, Not a second on the day." Relations soon became strained between the miners' leaders and their allies.

At this point Sir Herbert Samuel, the Liberal Chairman of the late Coal Commission, made his unofficial incursion into the dispute. Ostensibly on his own authority, and without consulting the Government or anyone else, he produced the "Samuel Memorandum," embodying proposals for a compromise rather better than those in the Commission's Report. The General Council, apparently believing that these terms had the Government behind them (Sir Herbert Samuel is known to have consulted Baldwin about them), agreed to recommend them to the miners. But the miners' leaders would have none of them. A definite breach followed, and without further consultation with the miners of the rank and file, and without any understanding from the Government either as to the Samuel terms or as to reinstatement, the General Council, on May 12th, called off the strike, and, through the various union executives, ordered an immediate return to work, incidentally canceling the order just previously issued calling upon the "second line," the engineers, shipbuilders and certain other trades, to join in the stoppage.

The unexplained order to resume work everywhere bewildered the

strikers, who had no idea what had happened. The Government organs and the small newspapers which had gradually reappeared with the aid of blackleg labor announced the utter collapse of the strike and the unconditional surrender of the General Council. When copies of the *British Worker* arrived, they put quite a different complexion on the matter. From the *British Worker* it appeared that the strike had been honorably settled on the basis of the Samuel Memorandum. The General Council were trying to cover up defeat in order to get the men to resume work. Their effort very nearly failed. The railwaymen went to work, but found many of their number refused reinstatement, and instantly came out on strike. Only a hasty settlement between the railway Unions and the companies prevented something like a general resumption of the stoppage. For the strikers did not feel beaten, and as soon as they realized that their leaders had secured no terms there was widespread resentment and disgust. For some days, however, the position remained too uncertain for anyone to be sure just how matters stood. It was but gradually realized that the collapse of the "General Strike" had left the miners still locked out, to make the best terms they could or struggle on alone.

In retrospect, both the declaration of the "General Strike" and its ignominious collapse look inevitable. The General Strike "myth" had haunted the working-class movement ever since the days of Syndicalism and labor unrest before the War. It had revived powerfully in 1919, and had been behind the successive attempts at the consolidation of Trade Union forces. It was by no means, in the minds of the workers, an essentially revolutionary idea. On the contrary, the basis of its appeal was a simple feeling that all the workers were subject to the same dangers, and that all must stand together in meeting them. It was as a weapon of defense, and not of aggression, that the General Strike idea won most of its adherents. The employers, it was said, had their National Confederation and their Federation of British Industries. They did not need a general lock-out to enforce their will, because they were the people who controlled industry as things were. But they did hang together, and they did pursue a common anti-Labor policy. The workers too must act together. When one industry was attacked, the rest must rally to its support. This would probably cause the other side to give way, or at least to accept a compromise. If it would not, then, and not till then, in the very last resort, the workers must fall back upon their last constitutional weapon—the General Strike.

To the Government, however, the "General Strike" appeared in a different guise—as a challenge to the duly constituted authority of the State. Even Churchill can hardly be supposed to have believed that the strikers, or the members of the General Council, were attempting to overthrow the State, or that he and Sir William Joynson-Hicks had heroically saved the country from bloody revolution. But it was easy for

them to work up their feelings so as to produce this illusion temporarily on the middle-class mind, and even on their own. And what they did believe was that the time had come to deal with the long-continued uppishness of Labor, and to teach the working classes a salutary lesson. A chance so good that compromise would have been a disaster, and the use of the *Daily Mail* incident for breaking off negotiations was an act of national duty as well as a very "cute" move.

From the standpoint of the workers the "General Strike" can hardly avoid looking rather foolish. Those who organized it embarked upon it without any understanding of its inevitable consequences. They look, in the eyes of history, as inept as the German Nationalists of 1848. The Government looks, if not foolish, wantonly reactionary and perfidious in the extreme. The only people who come well out of the affair are the ordinary strikers; and they, naively, got the worst of it. For the return to work was followed by an orgy of victimization.

(f) *Aftermath—The Trade Union Act*¹⁶

The miners kept up their resistance for more than six months after the collapse of the "General Strike." It was obvious throughout this time to every observer that they were bound to be defeated; but they held out grimly and obstinately even after they themselves had lost hope. The Government, after the collapse, soon turned more and more openly against them. It repealed the Seven Hours Act of 1919, and so opened the way for the coalowners to increase hours as well as reduce wages. It caused pickets to be arrested, and refused to allow the Proclamation under the Emergency Powers Act to lapse. It waged war, through its Minister of Health, Neville Chamberlain, on those Boards of Guardians which sought to use public money for relieving the distresses of the men on strike. It repudiated the Samuel Report, refusing either to nationalize coal royalties or to apply any effective measures of compulsion to the coalowners in any part of their business.

Meanwhile, the workers throughout the country had raised funds in the miners' support until the whole movement was drained dry. Still more substantial support had come from the Russian Trade Unions; but the strain was too great to be indefinitely borne.

In the end, the men were literally starved into surrender. There were sporadic returns to work first in the Midland counties, and then elsewhere. At length, in November, the miners were compelled to accept terms even worse than those of 1921, involving both terribly low wages and the extension of working hours. Many of the coalowners made savage use of their victory, victimizing active Trade Unionists and using every chance

¹⁶ Reprinted from *A Short History of the British Working Class Movement*, by G. D. H. Cole, Vol. III, pp. 213-215 New York, 1927.

of destroying old working customs and making the men smart under the consciousness of servitude. They were getting their own back, they freely said. And, worst of all, the condition of the industry grew more and more desperate, in face of falling prices and intensified competition; and nothing, or next to nothing, was done to set it again on its feet.

The Government, having tasted reaction, wanted more. It felt that the Trade Unions were down, and it could not bear to miss the chance of stamping on their face. Accordingly, the "General Strike" of 1926 was followed by the Trade Disputes and Trade Unions Act of 1927.

During the "General Strike" there had been a considerable controversy over the question whether the movement was lawful or illegal. The Liberal, Sir John Simon, who took a violent part against the workers, pronounced it illegal, and attempted to frighten the workers with the fear of legal penalties. A certain Mr. Justice Astbury, best known as a judge whose previous decisions on Trade Union law were admittedly unfortunate, took the same side, and in deciding a case during the strike plunged into a long and irrelevant series of *dicta* denouncing it as illegal. Many lawyers held, on the other hand, that there was nothing illegal about it. It was, of course, true that, in striking, many workers had broken contracts of employment and were liable for civil damages on that account. But this was a purely civil and not a criminal matter, and had nothing to do with the legality or illegality of the strike itself. In the Trade Union Act of 1927, ostensibly in order to clear up these doubts, the Government, with the aid of its huge parliamentary majority, pronounced illegal, not only the General Strike, but all sympathetic strikes on any considerable scale. It further drastically altered the law of picketing, so as to put the Trade Union picket back almost into the unenviable position he occupied before the Act of 1859, banned all regular State employees from belonging to any association or federation not consisting wholly of State employees, inaugurated a new and highly dangerous procedure of legal injunction, on the Government's motion, against "illegal" strikes, made it possible, in connection with such strikes, for Trade Union funds to be attacked as in the Taff Vale case, and destroyed the Trade Union Act of 1913 by substituting "contracting in" for "contracting out" in the clauses enabling Trade Unions to spend money on political action. After the passing of the new Act, no Trade Union could collect any money for its political fund except from members who had actually signed a form expressing their desire to contribute for this purpose.

This extraordinarily drastic measure was, in addition, so ill drafted that, pending the decision of actual cases in the courts, no Trade Union could tell what would be its precise effects. As a Bill it was fought line by line in the House of Commons; but the huge Conservative majority carried it through without any substantial changes. They were still en-

gaged in teaching the workers a lesson. Meanwhile, by-elections went steadily and heavily against the Government; and there seemed every chance that the Act would not long survive the next General Election.

The Trade Union world of 1927 was, however, weak and dispirited after its defeat; and the Labor Party, though still gaining political adherents, shared in the general depression. The Independent Labor Party tried to keep matters alive with its slogan "Socialism in our Time"; but, despite its efforts, the movement languished. The Communists undoubtedly made adherents fast in 1926 and 1927 among miners and others disgruntled and inclined to despair of all moderate courses. On the other side, a few Trade Unionists of standing split away, and endeavored to form "non-political" Trade Unions in alliance with the employers, especially in the Midland coalfields. Liberalism, too, began again to bid for working-class support with a policy of social and industrial peace, profit-sharing, and a hotch-potch of similar "remedies" for unrest. Thus attacked from both sides, the working-class movement held sullenly on its way, disillusioned and weary, but showing scant inclination to be torn from its old loyalties. The active minds in the movement were already groping for a new policy of their own; but it was evident that a year or two must pass before the effects of 1924 and 1926—of political and industrial set-back—would wear off, and Labor be ready to resume its gradual, but broken, advance.

4. THE LEGAL STATUS OF LABOR IN ENGLAND

Historical Review

As in nearly all countries, so in England combinations of working men for the purpose of raising wages or withholding labor were first declared illegal. To some extent the effort to secure an improved legal status for labor is a record of the history of the labor movement in Great Britain. The consequent interaction of forces between the employers on the one side and the labor groups on the other has meant that since the beginning of the Eighteenth Century trade union law has presented a picture of constant modification and change.

Until 1799 the State considered it her duty to regulate wages and hours. In that year it was made illegal by the Combination Act of 1799 for any organization to try to improve the conditions of labor. To be sure, it was also made illegal for employers to combine for a similar purpose.

Anatole France said, in referring to the impartiality of the law: "the law in its majestic equality forbids the rich as well as the poor to sleep in the streets and to steal bread." It is obvious that the employers did not have the same need to combine that the working class did. As a matter of

fact the employers did combine and there is no record of a single employer ever having been penalized. In 1800 the Combination Act was made still more drastic. Any effort to induce a worker to leave his employment or even to attend a meeting to discuss improving conditions was declared illegal. In 1812, certain of the weavers went on strike. The entire committee of strikers was arrested as revolutionists. Certain of the book binders wanted to reduce the hours of labor from twelve to eleven and declared a strike. They were all arrested. The scissors grinders, an important organization of that day, tried to evade the law by organizing a Misfortune Club instead of a union, but the leaders were imprisoned just the same.

In 1824 Parliament repealed the criminal liability of combinations which sought to increase wages or improve working conditions, but there were so many strikes during the next year that in 1825 the law was modified by restricting what was known as molesting and obstructing so that it was almost impossible to conduct a strike successfully. The courts rather inclined toward the employers' side and interpreted intimidation and threats very severely against the workers.

In 1830 an attempt was made to unite all the workers in the National Association for the Protection of Labor. This soon fell to pieces, but in 1834 the Grand National Consolidated Trade Union of Great Britain and Ireland was formed and soon claimed to have three-quarters of a million members. The employers immediately began discharging workers who joined the organization. In spite of this, the organization survived. The employers then began to utilize some old laws passed at the time of the French Revolution. One provision of such a law made it criminal for an organization to administer oaths. In 1834, six Dorchester laborers were actually arrested on the ground that such oaths had been administered. They were tried and sentenced to seven years and deportation. The employers at that time, one hundred years ago, were utilizing the same methods that are in vogue in many parts of the United States to-day. For example, they compelled all employees to sign "the document," which was a statement pledging the worker not to join a union. In the United States this is called by labor a "yellow dog" contract. In general in this period the middle class, the statesmen, and the clergy opposed the trade unions. John Bright said that trade unions were a bad thing for every one, Lord Shaftesbury prayed that the workers "might be delivered from the tightest thralldom they had yet entered."

Starting in 1858, trade councils uniting various unions were formed in the largest cities. In 1859, the London building trades went on strike for the nine-hour day. The employers met them with "the document."

The workers retaliated by organizing the Amalgamated Society of Carpenters and Joiners. It is interesting to note that injustice on the part of one class usually calls forth in time its own prophylactic.

In 1859 the Molestation of Workmen Act was passed which modified the law of 1825 by stating that working men had the right to enter into agreements for the regulation of wages and hours and also peacefully to persuade others to cease or abstain from work for the same purpose.

In 1871 a trade union act became law providing that a trade union was not to be deemed unlawful merely because it was in restraint of trade. Another act in the same year repealed the law of 1859 so that peaceful persuasion was expressly legalized. In 1875 the Conspiracy and Protection of Property Act was passed, which provided that no combination among members of a trade union was indictable as a conspiracy unless such an act, if committed by one person, would be punishable as a crime. This act very definitely prevents the courts from acting against labor in Great Britain by injunction, as they have acted in the United States.

In 1901 a strike took place on a small railroad in South Wales. There was some violence. The railroad company, instead of arresting the individuals who did the deed, sued the trade union. This action was taken against the advice of the railroad's lawyers, on the insistence of the general manager of the railroad. The case was carried through on appeal to the House of Lords and—contrary to all expectation—they held that although the trade union was not a corporate body it could be sued for damages and that an injunction could be issued against it. The railway union, which had not authorized the strike or any wrong acts committed by the strikers, was compelled to pay in the neighborhood of \$115,000 in damages and also put to a total expense of over \$200,000. The decision naturally caused consternation in the ranks of the trade unions. Webb estimates that from first to last this decision cost the trade union over a million dollars. The result of this legal decision was in many cases to paralyze the executive committee of the trade unions in the event of a strike. This meant that in the future a corporation would not sue the man guilty of committing a criminal act but could sue the union. If they could get some one from their own employ into the union as a spy and if he committed damages they could compel the union to pay and even force it into bankruptcy. Another result was to arouse the unions to aggressive action. In one year they had doubled their membership, in five they had trebled it. It also stimulated labor to enter the political field and in 1906 twenty-nine labor members were elected to Parliament. They brought enough pressure to bear on Parliament to secure the enactment of the Trades Dispute Act. This

provided without any qualification or exception that no civil action may be entertained against a trade union for any wrong act committed by or on behalf of the union. It also gave three privileges to trade union officials: first, by declaring that an act done jointly shall not be actionable if it would have been legal if done individually; second, peaceful picketing was declared to be lawful; and, third, inducing another person to break a contract of employment was legalized. The trade unions thought they were now completely secure.

It was not long, however, before the employers attempted to retaliate. The trade unions had secured the Trades Dispute Act largely because of political action. The trade unions had been contributing to political campaigns. The employers felt that this was wrong and that action on the part of trade unions in the political life of the country was very harmful. The railway companies objected to the presence in Parliament of the secretary of the largest railway union. They therefore persuaded W. V. Osborne to bring suit against the Amalgamated Society of Railway Servants to prevent it from using its money for political purposes. Mr. Osborne, being a member of the union, claimed that his money was being used for purposes for which he had not donated it. With the aid of the railroads the case was carried up to the House of Lords, where the judgment was in favor of Mr. Osborne. The trade unions were prohibited from making a levy on their membership for the support of the labor party or maintaining members in Parliament. The decision further declared that although the trade unions were not incorporated, they could not lawfully do anything outside the purposes laid down in the Trade Union Act of 1876. Thus the trade unions discovered that they were prohibited from doing anything, even if all their members desired it, which was not within the terms of the Act of 1876. In particular, this prevented educational work, participation in municipal administration, and association in trade councils.

This Osborne judgment received the commendation of property owners, professional men, the liberal and conservative parties. It is small wonder that Gladstone, for long a leader in Great Britain, stated in his *Memoirs* that in fifty years of public life on every great moral issue he had found the propertied classes, the aristocratic class, and the educated classes to be wrong. The Osborne decision remained in force for four years. The Liberal and Conservative Parties were not concerned in changing it. During this period the trade unions were agitating all over the country. One indirect result of this judgment was that Parliament felt called on to provide to elected members a salary of \$2,000 a year. This was necessary, since

under the law an elected labor union member could not receive a salary paid by the trade union.

In 1913 a law was passed permitting a trade union to include in its constitution any lawful purpose, providing that its principal objects were those of the trade union as defined in the Act of 1876. Money could be spent for any of these purposes. In the case of political work, however, payment was to come from a special fund and any members of the trade union could secure exemption from subscription to it. Although the hostile decisions by the lower courts had probably delayed increases in wages for thousands of workers, the final result was to give trade unionism an established place in the law. Workmen were allowed to combine, they could strike, peaceful picketing was allowed, working men could withdraw from employment even in breach of contract. The trade unions could take part in political activity and they were completely immune from being sued. Sydney Webb makes clear that a rise in wages of a penny an hour for the railroad workers would have cost between twenty-five to thirty million dollars a year. The courts probably had prevented some such rise for a ten-year period, so that the gain to the owners of stocks in the railroad companies amounted to some two hundred fifty million dollars.

During the War, in the Munitions Act the Government provided that no worker on munitions could be discharged on the ground that he was a member of a trade union or had taken part in a trade dispute.¹⁷ This was moving in the other direction: the Government, instead of handicapping organized labor, was placed in the position of protecting it.

The 1913 law remained in force until the Conservative Government came into power and enacted the Trades Dispute Act of 1927. This act provides that a strike for any other object or in addition to the furtherance of a trades dispute within that trade or union in which the strikers are engaged is unlawful, if it is designed to coerce the Government either directly or by inflicting hardship on the community. It is apparently clear that if the object of cessation of work is something more than a dispute with the employers over conditions of work, a strike would be unlawful. There is no definition of what constitutes hardship upon the community and as any strike of necessity involves some inconvenience to the public it might be declared unlawful; certainly this would apply to a sympathetic strike.

According to the Act of 1927 it was declared to be illegal to utilize any money for such illegal strikes. Any one instigating others to take part in such an illegal strike could be summarily imprisoned for a period not

¹⁷ Munitions of War Act, 1917, 7 & 8 Geo. V, ch. 45.

exceeding three months, and following conviction on indictment imprisoned for not over two years. It further provided that the Trades Dispute Act of 1906 did not apply in the case of illegal strikes, which means that union funds would be liable for any injury or loss suffered by employers. The Trades Dispute Act of 1927 further made it unlawful to picket, if the pickets attempted to do their work in such a manner as to intimidate any person or to obstruct the approaches to a place of business. This section applied to all strikes either legal or illegal. The difficulty with the law is that it is so easy to say it has been violated. In the State of Massachusetts a law was passed legalizing peaceful picketing. The writer, however, has been in a court of that State where in spite of this law the judge ruled that it is impossible during a strike to have peaceful picketing, thereby nullifying the law. The Trades Dispute Act of 1927 could be similarly interpreted by any judge, who could rule that the number of pickets was calculated to intimidate some one or that they would obstruct the approaches, since there is no definition in the act as to what this may mean.

The law of 1927 also prohibited the union from discharging any worker who refused to take part in a strike. It also provided that it is unlawful to require any member of a trade union to make any contribution to a political fund unless a personally signed notice to the effect that the member wished to contribute to the fund had been sent to the head office or a branch office. Even in such a case the worker can at any time withdraw this approval. Any political levies which are made have to be secured separately, to be distinct from all the other funds of trade unions, and to be kept separately. The practical effect of this provision is to make it much more difficult for the trade union to secure political funds. It is easy to vote funds for political purposes, it is not so easy to induce a member to make a written request that his money be so used. The attendance at trade union meeting usually embraces but a small fraction of the working forces. Political funds must now be secured after personally interviewing and securing the written consent of every individual in the trade union. This is not so different from the methods which the other political parties use in approaching the general public.

The Act of 1927 furthermore provided that it should be unlawful for any local or public authority to require a worker to be a member of the trade union. It also permitted any person to sue for an injunction to restrain the application of funds of the trade union which might be used in violation of the Act. The result of this drastic law, enacted by the conservative government, was enormously to increase trade union political agitation throughout the country. It contributed materially to the victory

of the Labor Party at the polls in 1929. It is probable that the Act of 1927 will, therefore, very shortly be modified or repealed.

Besides this brief sketch of the present legal status of labor in England certain other aspects should be considered.

5. SOCIAL INSURANCE

(a) *Workmen's Compensation*

The first Act, passed in 1925, gives the worker a number of advantages. Any occurrence is considered accidental unless it is expressly designed by the workman himself. Thus a teacher in an industrial school who was assaulted by the boys was held to be able to secure compensation. Those who are protected by the Act include manual laborers; clerical workers, except the following: any person employed in any other way than by manual labor whose remuneration is over \$1,700 a year, a person whose employment is of a casual nature not for the purpose of the employers' trade or business, a member of the police force, a member of the employer's family. It can thus be seen that the act was very much more sweeping than the provisions of workmen's compensation in most states in America. It also applies to any workman who is suffering from industrial disease.

(b) *National Health Insurance*

England also has a National Health Insurance law unlike anything we have in the United States. Under this Act, passed in 1924, every person sixteen or over who is at work must be insured and the total number now exceeds fifteen millions. There are, of course, exemptions which cover those who receive pensions of over \$130 a year, not the result of their personal services, and those who are dependent on others for a livelihood.

The cost of the Scheme is shared by the insured persons, their employers, and the national government. The revenue is derived, in the first instance, from weekly contributions paid partly by the workers and partly by the employers in the form of health insurance stamps affixed to contribution cards. The rates in 1926 were 9d. (about 18 cents) a week in the case of the men (employer 4½d., worker 4½d.), and 8½d. a week in case of women (employer 4½d., worker 4d.), consequent upon the modifications in the benefits of the Scheme which follow from the provision of pensions at sixty-five under the recent Widows', Orphans', and Old Age Contributory Pensions Act. The contribution from the National Exchequer towards the cost of the Scheme, apart from the cost of the Central Departments, takes the form of the payment of two-ninths of total cost of benefits, and of their administration.

The benefits provided under the plan are:

(1) Medical benefit, i.e., medical treatment and attendance, including provision of proper medicines and of prescribed medical and surgical appliances.

(2) Sickness benefit, i.e., periodical payments during incapacity for work through illness. The ordinary rates of sickness benefit are 15s. a week for men, and 12s. a week for women, commencing on the fourth day of incapacity and continuing for a maximum period of 26 weeks.

(3) Disablement benefit, i.e., a continuance of periodical payments during illness at the reduced rate of 7s. 6d. a week for both men and women after the title to sickness benefit has been exhausted.

(4) Maternity benefit, i.e., payment of the sum of £2 on the confinement of an insured woman or the wife of an insured man. (A total sum of £4 is payable in the case of a married woman who is or has recently been herself an employed contributor.)

(5) Additional benefits, which may be provided by an Approved Society having a disposable surplus on valuation, and may take the form either of an increase of the normal cash benefits, or payment towards the cost of various forms of treatment, such as dental, ophthalmic, hospital, or convalescent home treatment.

The Act makes provision for variation from normal contributions or benefits in the case of certain special classes of insured persons, such as women who cease employment on marriage, men serving in the armed forces of the Crown, seamen of Mercantile Marine, and others. There are also special provisions on a non-insurance basis for that class of persons known as deposit contributors, who can not, or do not attempt to, obtain admission to an Approved Society.

(c) *Unemployment Insurance*¹⁸

As is well known, the workers of Great Britain are also protected by unemployment insurance. This was first made obligatory in 1911. At that time it was restricted to certain trades, such as building construction of railroads, and docks, shipbuilding, mechanical engineering, iron foundries, sawmilling, and vehicle construction. However, this law was amended by the Unemployment Insurance Act of 1920 which makes virtually all persons between the ages of sixteen and sixty-five who are employed under contract of service in Great Britain, including apprentices in receipt of a money payment, fall under its provisions.

The following classes do not have to be insured:

Persons employed in agriculture, horticulture and forestry; private domestic service; established civil servants; non-manual workers receiving

¹⁸ See R. C. Davidson, *The Unemployed*, pp. 275-290.

remuneration at a rate exceeding £250 a year; persons to whose employers the Minister has granted a Certificate of Exception, which can only be issued to Government Departments, Public and Local Authorities, Railway Companies, Public Utilities, and employers whose employees have superannuation rights under an Act of Parliament, regular sailors, soldiers and airmen, teachers in established posts; female professional nurses and probationers; members of police force; commission agents who are mainly dependent upon some other occupation or who are employed as commission agents by more than one employer and are not mainly dependent upon any one such employer; persons casually employed for private purposes; persons employed in certain part-time subsidiary employments specified in Special Orders made by the Minister; share fishermen wholly remunerated by share; persons employed by their husbands or their wives, or by their parents and receiving no wages or other money payment; persons maintained by the employer and not receiving wages or other money-payment.

The decision on questions of insurability lies with the Minister of Labor, but any person aggrieved by a decision of the Minister may appeal to the High Court, and the Minister may, instead of himself deciding any question, refer the question to the Court.

The following persons may apply for a Certificate of Exemption during the currency of which they are not liable to pay contributions and are not entitled to receive benefit: (a) Persons in receipt of a pension or income of the annual value of at least £26 not dependent on their personal exertions; (b) persons ordinarily or mainly dependent for their livelihood on some other person, (c) persons ordinarily and mainly dependent for their livelihood on earnings in an uninsurable occupation; (d) persons who are employed in a seasonable occupation not usually extending over more than 18 weeks in a year and who are not ordinarily employed in any other insurable occupation

The employers of persons holding Certificates of Exemption are still required to pay the employer's share of the contribution.

UNEMPLOYMENT INSURANCE CONTRIBUTIONS

Contributions are payable by employers, employed persons and the Exchequer

Present Rates of Contribution (since July 2, 1928)

<i>Class of employed persons</i>	<i>Employer's contribution</i>	<i>Employee's contribution</i>	<i>Exchequer contribution</i>	<i>Total contribution</i>
Boys aged 16 and 17.....	4d.	3½d.	3d.	10½d.
Girls aged 16 and 17.....	3½d.	3d.	2¾d.	8¾d.
Young men aged 18, 19 20...	7d.	6d.	5¼d.	18¾d.
Young women aged 18, 19, 20	6d.	5d.	3¾d.	14¾d.
Men aged 21 to 65.....	8d.	7d.	6d.	21d.
Women aged 21 to 65.....	7d.	6d.	4½d.	17½d.

Any person entering an insurable employment obtains an unemployment book and hands it to the employer, who is, in the first instance, liable to pay the joint contribution of himself and the employed person. This is in general done by affixing an unemployment insurance stamp to the unemployment book issued in the name of the employee. The unemployment book has a currency of one insurance year. In general, contributions must be made before wages are paid. The employer is entitled to recover the employee's contribution by deduction from his wages. Employers of persons aged sixty-five or over who are in insurable employment pay the employer's share of the contribution only, and pay it whether or not the employee is in receipt of a State Old Age Pension. . . .

UNEMPLOYMENT BENEFIT

<i>Class of Insured Person</i>	<i>Weekly Rate</i>	<i>s.</i>	<i>d.</i>
Men aged 21 to 65	17	0	
Women aged 21 to 65.....	15	0	
Boys aged 16 and 17.....	6	0	
Girls aged 16 and 17	5	0	
Young men not in receipt of dependents' benefit:			
Aged 20	14	0	
Aged 19	12	0	
Aged 18	10	0	
Young women not in receipt of dependents' benefit:			
Aged 20	12	0	
Aged 19	10	0	
Aged 18	8	0	
Dependents' benefit:			
For an adult dependent	7	0	
For a dependent child.	2	0	
Young men and young women aged 18 to 20, if in receipt of dependents' benefit, get the same rates of ordinary benefit as adults aged 21 to 65. Persons aged 65 and over are not entitled to receive benefit.			

Benefit for Dependents

The dependents in respect of whom the above-mentioned additional rate of 7s. a week may be paid are as follows: A wife living with the claimant or being maintained wholly or mainly by him; a female person residing with the claimant (male or female) wholly or mainly maintained by claimant, if she has the care of the dependent children of claimant; a dependent husband if he is prevented by physical or mental infirmity from supporting himself and is maintained wholly or mainly by claimant, his wife; a widowed mother, widowed step-mother, unmarried mother, or mother whose husband is permanently disabled and unable to work, if living with claimant and wholly or mainly maintained by him or her.

An additional benefit of 7s. per week can be received only for one dependent at a time, and is not payable for wife or female person in receipt of unemployment benefit or in regular wage-earning employment, or engaged in occupation ordinarily carried on for profit.

An additional benefit of 2s. a week is payable to any child under fourteen maintained wholly or mainly by claimant, and any child fourteen or fifteen under full-time instruction in day school maintained by claimant. Two shillings may be claimed for step-child, adopted child or illegitimate child.

Waiting Period and Continuity Rule

There is a waiting period of six days for which no benefit is payable. Once claimant has completed waiting period, another waiting period is not required so long as unemployment is continuous. . . .

Statutory Conditions for Receipt of Benefit

(1) That not less than thirty contributions have been paid in two years immediately preceding date of application for benefit. (See exception below.) A person who has been for two years in receipt of a pension for disability contracted during the late War and who, by reason of disability, fails to satisfy this condition need only prove payment of ten contributions instead of thirty. If a person is unfit for work because of sickness, the period of two years may be extended by the period of sickness, provided the total period shall not exceed four years. If a claimant satisfies the condition at the date of claim, he is regarded as satisfying it for the next three months.

(2) Proof that the insured person has been continuously unemployed since application date.

(3) That the claimant is capable of work and available for work.

(4) That the claimant is genuinely seeking work, but unable to obtain suitable employment.

(5) That the claimant, if so required, has duly attended an approved course of instruction. (Specially applied to juveniles.)

Moreover, a person does not fail to satisfy conditions merely because he declines an offer of employment in a situation vacant in consequence of stoppage of work due to trade dispute, nor because he declines an offer of employment in his usual occupation in his usual locality at a lower rate of wages under less favorable conditions than he might reasonably have expected to obtain; nor because he has declined employment in his usual occupation in any other district at lower wages under less favorable conditions than those generally observed in that district by agreement between Associations of employers and employees, or than those generally recognized in that district by good employees.

After the lapse of a reasonable interval, a claimant may be required as a condition of receiving benefit to seek and to accept employment of a kind other than his usual employment, under favorable wages and conditions generally recognized by good employers.

Transitional Conditions for the Receipt of Benefit

Up to April 19, 1929, or the end of a benefit year beginning before that date (whichever is the later), a claimant who can not satisfy the first Statutory Condition (the thirty contributions condition referred to above) may in lieu thereof satisfy the following three conditions:

(1) That eight or more contributions have been paid in two years before the date of claim:

or

that thirty or more contributions have been paid at any time; and

(2) That he is normally employed in insurable employment and that he will normally seek to obtain his livelihood by means of insurable employment; and

(3) That he has during the past two years been employed to such an extent as was reasonable, having regard to all the circumstances of the case and in particular to the opportunities for obtaining insurable employment during that period

Men who have during the last two years been in receipt of a pension for a disability received in the late War are excused from condition (1).

Disqualifications for the Receipt of Benefit

(1) An insured contributor who has lost employment by reason of a stoppage of work due to a trade dispute in the factory, or workshop, is disqualified for receiving benefit, so long as the stoppage of work continues. If he obtains other employment during the stoppage of work, this disqualification may be removed. Such disqualification is not imposed if the insured contributor can prove that neither he nor other members of his own grade or class were participating either directly or indirectly in the dispute which caused the stoppage.

(2) An insured contributor losing his employment through misconduct or leaving work voluntarily, may be disqualified for six weeks or such shorter time as may be determined.

(3) An insured contributor is disqualified while he is an inmate of any prison or workhouse or other institution supported out of public funds, or while he is residing outside the United Kingdom.

(4) An insured contributor is disqualified while receiving sickness or disablement benefit, or blind person's pension.

Administration of Benefit by Local Education Authorities

Certain local education authorities have undertaken duties in connection with payment of benefit for boys and girls aged 16 and 17. In such areas, boys and girls must claim their benefit at the Bureau of the Education Authority.

Arrangements with Associations for the Administration of State Benefit: Indirect Claims

The Minister may make an arrangement for the administration of State benefit with any trade union or with a society approved under the National Health Insurance Act, or a body subordinate to it. The society or association must be one whose rules provide for payments to its members while they are unemployed.

Financial Provisions

There is established, under the control and management of the Minister, an Unemployment Fund into which are paid all contributions and out of which are paid all unemployment benefits, and any other payments payable out of that fund.

The Treasury may advance sums required for the purpose of discharging liabilities of the Unemployment Fund, provided the total amount of advances outstanding at any time does not exceed £30,000,000 [subsequently extended to £40,000,000]. Interest on such advances is paid out of the Unemployment Fund, and the sums advanced are repaid from time to time. The cost of the administration is paid by the Unemployment Fund itself up to a limit fixed at 12½ per cent. of the income of that fund.

There are three classes of workers who need help: the regular worker who is temporarily out of work, the worker who because of inventions and improvements is no longer needed, and the worker who because of deficiencies of character or physique is subnormal. The difficulty with unemployment insurance is that in England it is a blanket law which has been applied to all three of these categories when perhaps each one needs special treatment. Nevertheless, Americans may well ask why, if England can have unemployment insurance, the United States—which is economically more stable and prosperous—can not have it.

Conclusion

It can thus be seen that although the British worker has to constantly appeal to Parliament to protect him and although the British

courts favor the employer on the whole, the legal position of the British worker is very much better than that of the American. In all the history of the labor movement in Great Britain there are no records of such conditions as our mob violence in Ludlow, Colorado; industrial warfare in West Virginia, deportations and treason trials in South Carolina, and the brutality of the mounted police in Pennsylvania. In Great Britain during the railroad strike of 1919, over one hundred football games were played between the railroad strikers and the state troops and the *proceeds went for the benefit of the strikers*. This would be unheard of in the United States. During the miners' strike, when four million were unemployed, or even during the General Strike there was virtually no violence.

In another respect the British laborer is more secure than his American fellow-worker. He usually has the right of freedom of speech even in time of strike and the injunction is not issued against him. If a British labor leader is arrested he is brought into open court and tried just the same as any one else. He is not jailed for contempt of court without a trial, as so often happens in the United States.

6. CONCILIATION MACHINERY

One result of the collapse of the General Strike was to make the more conservative union leaders eager to reach some agreement with the employers on how to avoid disputes. At a joint meeting of employers and trade union representatives in 1928 the following plan was adopted. How successful the plan will be remains for the future to tell, but it seems clear that association, contact, and coöperation between workers and employers should mitigate the intensity of misunderstanding and hate which often appears when employer and trade union representative are completely cut off from each other.

The Prevention of Disputes

(Scheme adopted by The Conference on Industrial Reorganization and Industrial Relations, 4th July, 1928)

A. Preamble.—Successful as the machinery for negotiation between Employers and Workers has been in avoiding the outbreak of industrial disputes, it is felt that there are various ways in which the existing machinery for negotiation might be improved or strengthened. The historical review on conciliation and arbitration in industrial disputes given in the Survey of Industrial Relations by the Balfour Committee demonstrates the great amount of anxious thought which has been given in this country during the last forty years toward evolving machinery for

the avoidance of strikes and lockouts In no industrial country has so much been done, and it is only fair to say that the existing machinery has, on the whole, been successful in dealing with the great majority of disputes. On the other hand, this does not blind us to the fact that during the last few years the existing machinery has failed to deal with certain disputes of a serious magnitude.

The main problem would, therefore, appear to be finding means of avoiding the outbreak of disputes which have failed to be settled by the ordinary negotiating machinery in the industries concerned. From the outset it is agreed that:

(I) Nothing should be done to interfere with the beneficial work which is being carried on by existing joint machinery.

(II) Wherever possible the existing joint machinery should be improved or strengthened.

(III) The application of the element of compulsion would be unacceptable and undesirable.

This Conference is convinced that the most valuable and helpful element toward seeking a means of preventing disputes lies in the main objective of the Conference—the strengthening of good relations between organizations on both sides and their recognition of joint industrial responsibility. This Conference believes that a broader acceptance of the responsibility of industry as a whole for the avoidance of stoppages of work should be developed.

To enable this to be done under the best auspices it is felt that Joint Conciliation Boards should be formed, composed equally of representative Trade Union leaders and of employers representative of industry.

B. Elective Bodies.—In view of the proposal to establish a National Industrial Council, consisting of the General Council of the Trades Union Congress on the one side and an equal number of representatives of employers to be nominated by the Federation of British Industries and the National Confederation of Employers' Organizations on the other, it is agreed that the elective bodies to a Joint Standing Committee to appoint Joint Conciliation Boards should be as follows:

(I) That the Joint Standing Committee should consist of ten representatives of the workers and ten representatives of the employers.

(II) That the ten representatives of the workers should be nominated by the General Council members of the National Industrial Council.

(III) That the ten representatives of the employers should be nominated by the representatives of the National Confederation of Employers' Organizations on the National Industrial Council.

The Joint Conciliation Boards should be at liberty to discuss and consider in relation to industrial disputes all questions of any character relating to the industry under consideration.

It is understood that the members nominated to the Joint Standing

Committee and the Joint Conciliation Boards would be as representative on the one side of employers as on the other side of the workers, and should be equal in number.

C. Recommendations.—Accordingly it is recommended that:

1. A Standing Committee of the National Industrial Council nominated as to half its members by the General Council representatives of the National Industrial Council and as to half by the National Confederation of Employers' Organizations representatives of the National Industrial Council should be set up to act as the elective and executive authority for the provision of Joint Conciliation Boards for industrial disputes.

2. The Joint Standing Committee should lay down the detailed nature of the Joint Conciliation Boards, their procedure and functions, but that in doing this they should be guided by the following considerations:

(a) When a dispute has failed to be settled within an industry, on the application of either party the Joint Standing Committee would make available a Joint Conciliation Board to investigate and report upon the matters tending towards a dispute.

In order to facilitate investigation it is desirable that both parties should arrange that on an application made to the Joint Standing Committee no stoppage of work or alteration in conditions should take place pending the report of the Joint Conciliation Board.

(b) The report of the Joint Conciliation Board should be reported to the parties and to the Joint Standing Committee before publication.

(c) The personnel of the Joint Conciliation Boards should not be permanent. The Joint Standing Committee should appoint in each particular case referred to a Joint Conciliation Board, the most suitable representatives to deal with the particular industry or matter tending towards dispute.

(d) The Joint Standing Committee should have authority to reject application for reference to the Joint Conciliation Board if, in their opinion, the dispute was not of such a nature as should be referred.

(e) The Joint Standing Committee should also fix a time limit for the stages of reference, hearing, and report to a Joint Conciliation Board so that the matters in dispute should be reviewed promptly and reported upon without undue delay.

V. SIGNIFICANCE FOR THE UNITED STATES

In nearly every country the labor movement has not sprung up overnight, nor has it had the protection of the government. It has had to win for itself the legal right to exist against the bitter opposition of the propertied classes and the government. It would be possible to show that this has been true in practically every country which has had a genuine industrial

revolution. It is impossible to do this within the limits of this volume. Nevertheless, it has seemed desirable to remind the reader of some of the outstanding events in the history of the American labor movement in order that he may contrast it with that of Great Britain.

I. A BRIEF SKETCH OF THE AMERICAN LABOR MOVEMENT

The American labor movement was not an outgrowth or development from Great Britain. It has been a natural product of American conditions. The reasons why American labor could not develop along the lines of English experience are many. In the first place, we never have had feudalism in the United States. The workers are not bound down into a class organization. Each laborer hopes to rise into the capitalist ranks himself. In the early period of our history, if things went wrong, he could always go West and become an independent farmer. Furthermore, the American worker received his ballot without fighting for it. He had not secured so many gains through distinctive political action as the English worker. The size of the United States makes labor organization much more difficult here than in Europe. A single state in the United States may be larger than all of England. If the workers organize in one locality they may not be able to do so in another where freedom of speech and assembly may be illegal and prohibited. American labor has had to face a stream of foreign immigrants, who could be used to break the high standards which they had secured. Again, capital is better organized in the United States than in any other country. Labor unions have had to face billion dollar corporations. Moreover, the skilled workers are better paid than in Europe; conditions for them are reasonably tolerable, so "why waste much energy on trade unions, particularly of the unskilled," is their argument.

To be sure the leaders of the American Federation of Labor would probably say that they are deeply interested in having unskilled workers organized but that it is a much more difficult task than in the skilled field. They feel, "It is pretty generally true that workers in what are generally regarded as the more skilled trades are persons of greater intelligence and they were the first to see the value of unionism and the first to act, but there is nothing to prevent the unskilled from taking action and joining the trade union movement." All this simply means that in the past while accepting unskilled unions where they developed, the American Federation of Labor leadership did not devote itself unsparingly to the organization of this class. Furthermore, the individualistic psychology of America with its materialistic emphasis has been against idealistic and Utopian philosophies and favorable to the practical type of labor leadership.

Bearing these features in mind, let us consider briefly some of the outstanding events in the American labor movement.¹⁰

Beginnings: 1785-1835

The development of the labor movement in various countries throughout the world has shown that effective unions have not usually been formed unless the following conditions were present:

1. There must be some degree of general education, so that the labor leaders are literate and the rank and file must have been educated to the necessity of organization by those leaders.

2. The basic tools of production must not be owned by the workers.

3. The workers must come together in close contact through their occupation.

4. To some degree at least the opportunity to rise from the ranks of labor must be curtailed.

5. There must be factors which are creating dissatisfaction among the workers.

In the United States this development had not taken place until about 1835. Nevertheless, as early as 1785 we find New York workingmen organizing a society to reduce the cost of living, a sort of cooperative, and in the first quarter of the nineteenth century guilds of workers had begun to form organizations. They gradually found it wise to prohibit employers from membership. In nearly every case they were purely local organizations. A first instance of collective bargaining, i.e., negotiation between employers and employees occurred in Philadelphia when the shoemakers of 1799 sent a deputation to wait upon the employers with an offer of compromise. In 1786 the printers of Philadelphia stopped work jointly to enforce their demands and precipitated one of the first strikes in the United States. As soon as labor organizations began to fix definite conditions of labor they needed to send a committee to the various factories to see if the workers were living up to these conditions. This was called at first the "tramping committee."

As in other countries, the courts were often used to suppress efforts for justice on the part of the workers. Although our American movement is quite distinct from that of Great Britain, our legal traditions were inherited from England. Consequently, the American courts took over the

¹⁰ The student who desires to have a more adequate idea of the American labor movement is urged to turn to the study by John R. Commons and associates, *History of Labor in the United States*, or to Mary Beard, *A Short History of the American Labor Movement*, or to Samuel P. Orth, *The Armies of Labor*.

doctrine of conspiracy in reference to combined action. Such a legal precedent was natural enough in a country with a monarchy. It was rather out of place in a democracy, but it suited the purposes of the wealthy owners. As far back as 1305 in England a statute had been enacted against all persons who combined for a "malicious enterprise." This was a convenient weapon to use against organized labor. Moreover, the doctrine which came across the Atlantic from England prohibited all combinations in restraint of trade. The result was that, when in Philadelphia, for instance, the cordwainers called a strike in 1805, they were tried for conspiracy and found guilty. Although at that time children under sixteen worked twelve hours or more a day it was considered unlawful conspiracy to try to decrease working hours. About the end of the first quarter of the century the carpenters of Boston struck for a ten-hour day, but lost. It is interesting to remember that the first real trade union was organized in Philadelphia in 1827 under the name of the Mechanics' Union of Trade Associations. This antedated the organization of a similar union in Manchester, England, by two years, although the idea and the name had come from across the Atlantic. The following year this union started the first labor paper—*The Mechanics' Free Press*.

The movement for political action started in Philadelphia as a result of the carpenters' strike for a ten-hour day. In 1828 the Mechanics' Union of Trade Associations proposed to the various other trade organizations that they should unite in electing those who were friendly to the interests of the working class in the city council and the state legislature. A large number were elected. This movement soon spread. In at least fifteen cities local labor centers were formed and fifty labor papers were founded. Their program was for free and equal public education, the ten-hour day, and the abolition of sweat shops. Then, as now, the press declared the movement for shorter hours to be of dangerous foreign origin. One of the Boston papers declared it "could not believe this project has originated with any of the faithful and industrious sons of New England, but was compelled to consider it an evil of foreign growth." In March, 1834, the trade unions of the country at a convention in New York City urged equal universal education. The next year they demanded free libraries. In large measure it may be said that the public school system is the result of the efforts of labor sympathizers. However, political activities had the effect of taking time and attention away from the trade union organization. The result was that labor turned back again to industrial action.

Trade Unionism

(From 1836 to the Civil War)

In 1836 it is estimated that membership in organized unions numbered over 300,000. During 1835-1836 five different organizations held conventions on a national scale: the cordwainers, carpenters, printers, comb-makers, and hand-loom weavers. At this time there were 58 unions in Philadelphia, 52 in New York City, 16 in Newark, N. J., and 13 in Pittsburgh. Organizations for women were also beginning. During this period the courts were used vigorously against strikers. For instance, in 1836 in New York, where the tailors were on strike, twenty of them were convicted of conspiracy and fined fifty dollars or more. Afterwards mass meetings were held denouncing the courts for declaring union activity illegal and a resolution was passed declaring "to all acts of tyranny and injustice resistance is just and therefore necessary." Handbills were circulated declaring

The Rich against the Poor!

Twenty of our brethren have been found guilty for presuming to resist a reduction in their wages! . . . Judge Edwards has charged . . . the Rich are the only judges of the wants of the poor. On Monday, June 6, 1836, the Freeman are to receive their sentence, to gratify the hellish appetites of aristocracy! . . . Go! Go! Go! Every Freeman, every Workingman, and hear the melancholy sound of the earth on the Coffin of Equality. Let the Court Room, the City-hall—yea, the whole Park—be filled with mourners! But remember, offer no violence to Judge Edwards! Bend meekly and receive the chains wherewith you are to be bound! Keep the peace! Above all things, keep the peace!

In 1834 the National Trade Union had been formed and annual conventions were held until the panic of 1837. The result of the panic was again to turn labor temporarily toward political action because the unions were so badly weakened. With prosperity, however, there was again a tendency to turn back to the trade union movement. Gradually the ten-hour day began to win its way. In 1847 the British Parliament passed such a law. In the same year the New Hampshire Legislature enacted it, while Pennsylvania did so the following year. New Jersey, Ohio, and Rhode Island followed suit by 1853, and the ten-hour day was won.

The Civil War caused great hardship among the workers because the increased wages did not keep pace with the rising cost of living. Nevertheless, by the end of the War the number of local unions had increased.

National Organizations: 1866-1877

The growth of the railroads, with the rapid development of commerce on a nation-wide scale, led to the establishment of various national trade unions. The order of the Knights of St. Crispin was organized to protect the unskilled shoe workers, for instance, and in 1866 a national labor congress was held in Baltimore which was attended by delegates from thirteen states. It demanded control of immigration, the eight-hour day, and national amalgamation in Congress of all organized labor. By 1868 the movement for shorter hours was successful in securing the enactment of such a law for Federal employees. This organization was successful for a time, gaining 640,000 members, but the majority decided to affiliate with the Labor Reform Party in 1870. This split the membership and after 1871 it disappeared. There followed the organization of industrial brotherhoods in 1873 which was a radical movement but against political action. In 1876 this resulted in the organization of the Amalgamated Association of Iron and Steel Workers. This period saw the start of the Molly McGuires, a secret society which used terroristic methods against the bosses. Their organization and methods no doubt came about because after a seven months' strike in 1874-75, the mine owners and the state authorities had used violence against the workers. Afterwards it was made impossible to organize openly in these districts and the Molly McGuires resulted. Violence usually begets violence. In 1875 a general textile strike in Fall River was lost by the workers. In 1877 there was a railroad strike. It started on the Pennsylvania and spread to other lines, with the result that Federal troops were called out and a powerful stimulus was given to the building up of state militias. Following the panic of 1873 the number of national craft unions fell from thirty to eight.

The Knights of Labor

As a result of the panic there rose the Greenback Labor Party and later the Socialist Labor Party. As far back as in 1869 H. Smith Stevens and other garment workers had founded the Noble Order of the Knights of Labor as a secret local order. Its secrecy caused many to misunderstand and fear what it was trying to do. As a result of the hostility, especially of the Catholic Church, the Knights finally gave up the secret character of their organization in 1881. The organization was most democratic, admitting all laborers, skilled and unskilled, men and women, white and black. They believed in the public ownership of all public utilities and the coöperative

production and distribution of goods. The growth of the organization was slow at first, so that in 1873 they had only six assemblies, all in Philadelphia. However, so quickly did the movement spread, that in 1875 they were able to call a national convention in which Socialist participation was welcomed. By 1885 the members numbered over 700,000 and at one time they boasted a membership of over a million. Naturally, it was a conglomeration of all sorts and conditions of men, including radicals, conservatives, and intellectuals. To a limited extent it carried on union activity. For instance, for a number of years the miners were united in an organization under its leadership. There were also some local and district assemblies that functioned as craft or industrial organizations.

The Knights of Labor, in addition to political work, supported many strikes. It was often impossible for the executives to know whether the strikes were justified or not. In the single year 1886 there were nearly 500 such labor disputes. In the same year the Knights of Labor vigorously supported a strike on the Southwestern Railroad. After two months of violence the strikers lost. This and many other defeats were very damaging to the prestige of the organization. In Chicago, during a strike of some 60,000 workers on the railroad, some one threw a bomb into a mass meeting in Haymarket Square. Seven people were killed and sixty wounded. As a result seven anarchists were hanged. The Knights of Labor demanded clemency for the murderers. This did much to impair the reputation of the Order in the public mind. The next year, in the Grand Lodge of the Knights, a vote of sympathy for the anarchists was voted down, whereupon the radicals seceded from the organization. In the meanwhile the American Federation of Labor was beginning to organize on a craft basis, appealing to the more highly skilled workers. The decline of the Knights of Labor had begun.

The Rise of the American Federation of Labor: 1886-1900

Some of the disaffected Knights of Labor had formed an amalgamated union. The trade union element predominated and looked to the British movement as their model. At a meeting of this group in 1881, together with the Knights of Industry, a new organization was begun under the name of the Federation of Organized Trades and Labor Unions of the United States and Canada. In 1886 it met at Columbus in a convention representing the trade unions. A federation was effected, representing twenty-five organizations, under the title of the American Federation of Labor. Whereas the Knights of Labor had allowed almost any one who

was sympathetic with the labor movement to join, the American Federation of Labor actually seemed to center about the skilled workers and was an organization largely on a craft basis, although officially it refused to advocate the "trade" union to the exclusion of the "industrial" union²⁰ or vice versa. The Knights of Labor attempted to rule dictatorily from above; the American Federation of Labor placed complete autonomy in the hands of the member unions. There was also a difference of policy. Wage consciousness was substituted for class consciousness. It was considered better to accept the present economic order and work within it for greater benefits for all union members. Collective bargaining with employers and written trade agreements now received chief stress. As a result its membership grew rapidly. In 1889 alone over 70,000 new members were reported and in 1900 over 200,000. A rivalry quickly developed between it and the Knights of Labor, with the result that the American Federation of Labor won the workers to its support, while the Knights of Labor gradually disintegrated. The open break between the two organizations was precipitated because of jurisdictional disputes with the Knights of Labor. Non-union goods condemned by the regular trade unions were often made by members affiliated with the Knights of Labor. Thus the two organizations were constantly in conflict. In 1886 the Knights declared open war on the American Federation of Labor, but lost the battle.

From 1900 to the World War

During this period the membership of the American Federation of Labor increased very rapidly. Under Samuel Gompers' leadership the Federation continued to promote industrial action, following the settled policy of non-partizan political action, rewarding friends and punishing enemies, but not supporting any one political party. Samuel Gompers believed in a policy of extreme economy. Under his leadership the American Federation of Labor demanded only small funds from the trade unions and paid modest salaries. Gompers insisted on democratic methods in debate and referendum in reaching important decisions, and he did not act until he had the majority behind him. He thus remained the unchallenged leader of the American Federation of Labor until his death. At the beginning of the World War the American Federation of Labor maintained neutrality, but with the declaration of war by the United States all the energies of the officers were thrown into its support.

²⁰ An industrial union is one which embraces all the workers in a given industry irrespective of their particular skill. The United Mine Workers of America is such a union.

From the World War to the Present Time

The officials of the American Federation of Labor during the War accepted positions on government boards and in general opposed strikes. It also strongly opposed the I. W. W. and other radical groups. It received strong support from President Wilson and succeeded in securing the enactment of the Clayton Act, which declared that labor combinations could not be considered in restraint of trade. The American Federation of Labor emerged from the World War with a larger membership than ever before in its history. However, it had to meet the militant efforts of the employers to reduce wages after the peace settlement, which resulted in several strikes in the coal fields and elsewhere. Labor lost, at least partially, most of the struggles. In the last coal strike it was forced to settle on an individual district basis instead of a national one.

Besides the American Federation of Labor there are four railroad brotherhoods, of which the Brotherhood of Locomotive Engineers is the oldest and most powerful. There is constant talk of the railway brotherhoods joining the American Federation of Labor, but up to the present time this has not been effected. During the War the government aided the railroad boards by permitting organization on the lines controlled by the government, and both McAdoo, the Director-General of the railroads, and his successor gave large increases to the workers.

Another successful union which is independent of the American Federation of Labor is the Amalgamated Clothing Workers. This arose because of sweat shop conditions in the clothing industry and has to-day in the neighborhood of 100,000 members. It has a standing request for admission to the American Federation of Labor, but because of the fact that the United Garment Workers in the same field had a prior charter, this has not yet been granted.

The American Federation of Labor has lately seen the necessity of changing from a craft basis in certain large-scale mass-production industries and has talked about organizing the automobile industry on an industrial basis, but thus far without success. In 1930 a serious inner revolt within the United Mine Workers resulted in the establishment of a dual union. The A. F. of L. is also facing radical Communistic action which has recently assumed leadership of strikes in the textile centers in the South. In its Convention of 1929 it voted to start organizing the Southern worker. Up to the present time the American movement has not developed political tendencies akin to that of Great Britain, although a small group has organized a conference for Progressive Labor action.

The labor movement in the United States is decidedly American, a product of our individualistic philosophy; it is intolerant of Utopian schemes of reform and is beginning to undertake coöperative work with the employer. Provided it can secure adequate wages and hours, it is content to leave more radical programs to the intellectual liberals who are interested in social movements in the United States, but are without much power. Nevertheless, there has always been a radical movement: at one time the Knights of Labor, later the I. W. W. and the Socialist Party, and since the War we have in addition the Communist group. No one can predict when or if these more radical groups may grow into the majority. Anything may happen in the future, especially in a period of depression.

* * *

The provisions of the Clayton Act affecting labor are so important that we give the exact wording and also a resolution of the American Federation of Labor tending to show that, contrary to the impression of many business leaders, it is willing to aid in increasing production.

Section 6 of the Clayton Act of 15th October, 1914; 38 Stat. l. c. 323.

"Sec. 6. That the labor of a human being is not a commodity or article of commerce. Nothing contained in the anti-trust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purpose of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the anti-trust laws."

Resolution adopted by the Annual Convention of the American Federation of Labor, 1926. Proc. 1925, p. 271.

"We hold that the best interests of the wage-earners, as well as those of the whole social group, are served, in increasing production in quality as well as in quantity, by high wage standards which assure the sustained purchasing power to the workers and, therefore, higher national standards for the environment in which they live, and means to enjoy cultured opportunities. We declare that wage reductions produce industrial and social unrest, and low wages are not conducive to low production costs. We urge upon wage-earners everywhere that we oppose all wage reductions, and we urge upon managements the elimination of waste in production in order that selling prices may be lower and wages higher.

"To this end we recommend co-operation in the study of waste in production, which the assay of the Federated American Engineering Societies, covering important industries, has shown to be 50 per cent attributable to

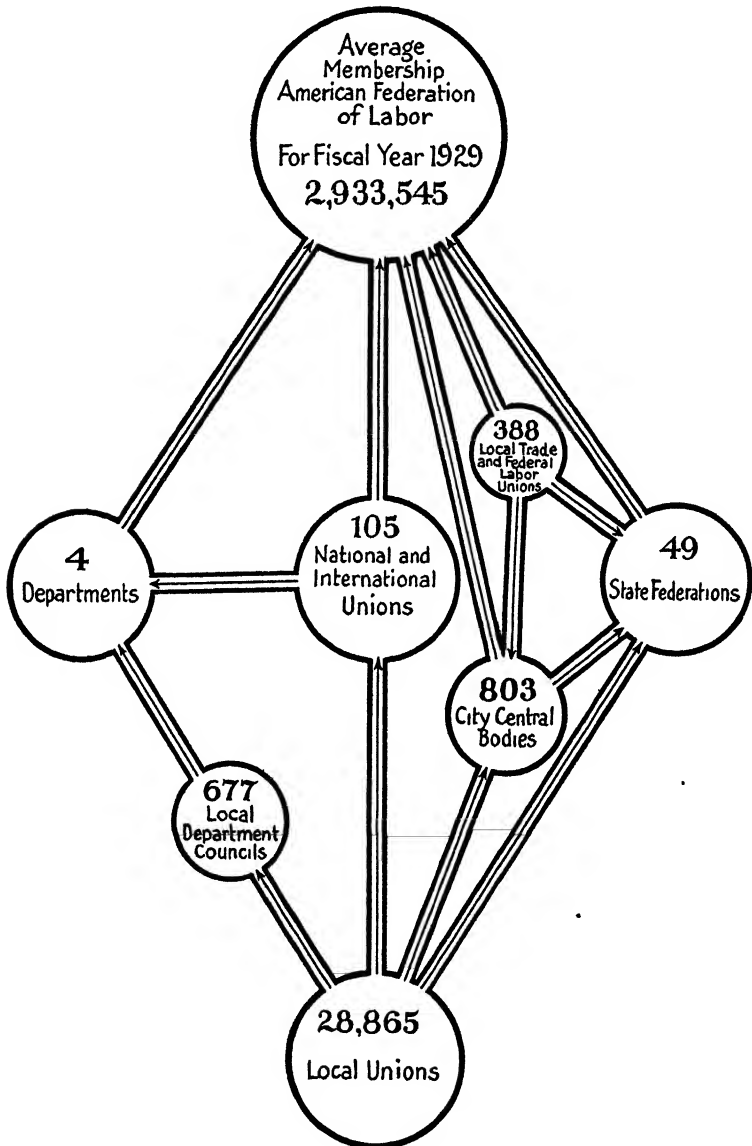
management, and only 25 per cent attributable to labor, with 25 per cent attributable to other sources. . . . Social inequality, industrial instability and injustice must increase unless the workers' real wages—the purchasing power of their wages—coupled with a continuing reduction in the number of hours making up the working day, are progressed in proportion to man's increasing power of production."

2. THE STRUCTURE OF THE AMERICAN FEDERATION OF LABOR

Since the American Federation of Labor is the most important organization in the United States affecting labor, its organization should be clearly understood by the student. It is purely a voluntary federation made up principally of international trade unions, so called because they include the workers of the United States, Canada and, in some instances, Mexico. It also combines federal unions for workers who are not organized in sufficient numbers to justify the creation of an international organization. In the case of international unions the American Federation of Labor has the right to settle conflicts of jurisdiction, to see to it that no two internationals have in their membership workers engaged in the same character of work, or, in other words, that there should be no overlapping. The main function of the Federation of Labor is to act as the central policy making agency for the entire labor movement and to assume leadership in putting these policies into effect. The Federation does important work in the political, as well as in the economic and social fields. At the present time, with industry changing its machinery so rapidly, this is extremely difficult. The only power the American Federation of Labor has to enforce its decision is to revoke the charter of an international union. This can be done by a two-thirds vote at the annual convention. The American Federation of Labor has salaried organizers who help to strengthen and develop unions. It also has nearly a thousand volunteer organizers who receive no salary, although they are given an honorarium for each union they help to organize. The income of the American Federation of Labor comes from a fixed monthly *per capita* tax of one cent per member.

The international unions are the real powerful units in the federation machinery. They usually have centralized authority and power, although their internal government differs widely. Nearly always the officers have the power to disapprove of strikes. However, the international unions usually permit their locals to initiate collective agreements or to inaugurate strikes, provided they do not receive the disapproval of the national organization.

The following chart gives a rough picture of the American Federation of Labor to-day.



The above chart outlines the organic structure of the American Federation of Labor, with its 105 national and international affiliates, four departments (metal, building, railway shop employees and union label trades), State federations, city central bodies, local department councils and local unions.

Wherever there is not a sufficient number of workers in a particular trade to organize an international union, they can usually affiliate directly with the American Federation of Labor as a federal union. To-day there are approximately four hundred of such small unions. In the case of federal unions the officers of the A. F. of L. are the officers of the subordinate organization. To-day there are approximately five hundred such small groups with over 30,000 workers in their membership. Members in these unions pay twenty-five cents a month to the A. F. of L.

The locals in each city of the United States are usually affiliated into city centrals. These local city federations are directly authorized by the American Federation of Labor and pay the latter ten dollars annually as dues. The city federations usually meet twice a month and promote any measures which are in the interest of all the unions of that particular locality. State federations of labor are similarly organized, except that they embrace the unions throughout an entire state. They similarly receive their charter from the American Federation of Labor and pay ten dollars in dues. The final authority of the A. F. of L. lies with the annual convention. City and state federations are represented by one delegate. International unions have one delegate for any organization up to 4,000 members; two delegates if they have 4,000 members or more; three delegates for 8,000 or more; four delegates for 16,000 or more, and so on. Each delegate has one vote, except that on a roll call he casts a total number of votes equal to the membership of the entire international union although the city and state federations have but a single vote each. Sometimes the entire convention votes in favor of organizing a particular group of workers. This happened in 1929, when it was voted to actively assist in organizing the textile workers in the South. The executive council of the Federation which is elected annually consists of a president, eight vice-presidents, a secretary and treasurer. Since the Convention meets only annually, the executive council handles all matters between the conventions. The chief activities of the Federation between conventions is to represent the point of view and needs of labor in conferences and in various policy-making groups concerned with political, social and economic problems, to work for legislative measures, to seek to elect those favorable to labor, to give out information and publicity, to work for better education, both in public schools and in the workers' field and to provide legal information and help.

There are four chief departments of the Federation: Railway, Metal Trades, Building Trades and Union Label. The first three departments promote methods by which the different trade organizations employed in a common industry can better cooperate for the mutual advancement

of all. In the case of the Railway Employees Department, the unions act as a unit in all matters including negotiation of wages and working conditions. The Union Label Trades is a department, as the name implies, for cooperation among all unions which use the union label.

3. AMERICAN LABOR IN POLITICS ²¹

The American Federation of Labor has sent most hearty congratulations to British labor on its political victory. The Labor government is a victory for democratic government and foreign policies that seek peace between nations. The Labor government was elected to carry through a constructive program. In the campaign the Labor party proclaimed that it was neither Communist nor Bolshevist and that it was opposed to force, revolution and confiscation as the means for carrying out its objectives. The representatives of the British labor movement who occupy places in the Cabinet are able, stanch trade unionists. The major economic problem has been entrusted to that able tactician and legislator, James H. Thomas. The Labor Department is entrusted to a distinguished woman, Margaret Bondfield, an efficient trade unionist of many years' service.

British labor assumes this new responsibility purged of all delusions as to the value of the general strike as a method for securing constructive results, and with a declared policy of union cooperation with employers for mutual progress. Since the Labor party will need the support of the Liberals, it seems probable that those social measures will be pushed to which the Liberal party has given its sanction. The fundamental purpose of every labor movement is to promote the social welfare of the under-privileged. As the British trade union movement is the bone and sinews of the Labor party, we may be sure that labor ideals will have real influence in the government.

Methods Must Differ

That the American labor movement rejoices in the victory of British labor in no way means that we believe that the same methods would bring us the results we need. Policies must be adapted to the conditions and circumstances in which they must operate; not only must a method be theoretically good, but it must be practical under specific conditions in order to be effective.

Though the labor movements of all countries have the same ultimate ideals, we find each movement evolving its own distinctive methods and practices. This is because nations, even when separated only by an artificial boundary, have distinct personalities as expressed in national institutions.

²¹ William Green, reprinted from the Sunday New York Times.

The labor movement of each country is one of these distinguishing national institutions.

In Great Britain, when the trade union movement was facing the urgent need for legislation legalizing the labor movement and its essential activities, it decided that the most effective method was to mobilize labor's political strength in an independent labor party. The United Kingdom is a compact industrial country where industrial communities are practically continuous. The population is about 490 persons per square mile. It has a homogeneous population, speaking the same language, with pretty much the same standards of living and with the same social ideals, without color or race problems—the product of centuries of national development. Political activity in Britain, as compared with the United States, has had a very different place in national life. For a number of years British labor had been electing independent candidates to Parliament. They were accustomed to think of themselves as a separate class. Independent party action seemed to promise practical results.

The results have justified the policy. Within a short time the Trades Disputes Act legalized peaceful union picketing and other legitimate union activities. During wartime the Labor party, serving as the medium of labor opinion, achieved a new influence and prestige. In a very tangible way it expressed the democratic ideal which the World War popularized. It came into power when the old political policies broke down under the new problems, and lost under the worldwide tide of reaction that put Conservatives and reactionaries in power.

Labor in the United States has to meet very different conditions and practices. The United States is in the New World, which has been the land of opportunity for men and women of all nations. The adventurous and the oppressed of many countries have sought home and better fortunes here. A virgin continent had to be brought under control. Even to-day there are frontier communities where settlers must cope direct with primitive forces and where they must rely upon individual resourcefulness. We have a population of forty persons to the square mile.

Until recently the United States was definitely an agricultural country with widely separated urban and industrial communities. The distances of this country are practically incomprehensible to those who live in Western Europe.

We have been the melting pot for the citizens of the whole world, so that we have a most cosmopolitan population. In our industrial cities, and in agricultural communities as well, we have national blocs that have as yet resisted assimilation into our nation. We have foreign language problems, race and color prejudices, and even among our own native born we have still the aftermath from our Civil War.

In addition to these elements of separation, wage earners in the United States have never regarded themselves as a distinct class. There

have always been wage-earning groups, but there have been many doors open to opportunities in other fields. There has also been the modifying fact that wage-earners were politically equal with all other groups after manhood suffrage became an accepted practice. Wage earners became members of the old line parties and through these parties exercised a more or less effective influence for social ideals.

The Anti-Trust Law Decision

When labor in the United States came to face the problem of being practically outlawed after the provisions of the Sherman Anti-Trust Law were interpreted as applying to trade unions and injunctions were issued to prohibit trade union activity, even to the disbursing of union funds, we faced the problem of what kind of political activity would get us remedial legislation in the shortest time.

The American Federation of Labor had followed a non-partizan policy in politics after it experienced the disruptive consequence of an endorsement of free trade. We knew that many early labor organizations had found partizan politics fatal. We had seen the National Labor Union wrecked by an attempt to nominate a Presidential slate. Politics contributed to the dissolution of the Knights of Labor. Endorsement of free silver had brought us difficulties in the Bryan campaign. We found that wage earners responded to appeals to support friends or causes, but resented efforts to control party affiliation.

Third party movements in the United States have never had real success. Though there have been more than two parties at times, the situation has repeatedly resolved itself back to the two-party system. Even the Bull Moose party, led by Theodore Roosevelt, the most romantic and magnetic leader of the last fifty years, did not last longer than one campaign.

Labor has always been able to find persons in both parties willing to support its humanitarian purposes and its pleas for justice. This remained true until organized opposition of anti-union employers barricaded opportunities for labor legislation. Accordingly it was the organized labor movement that led the movement to secure reform of Congressional rules to break the dictation of the Speaker and to secure open consideration of legislative proposals.

When the Federation came to consider its urgent need for legislation it had this background of political experience against which to judge proposals for action. Weighing the difficulties of an independent labor party against the urgencies of our need, we decided that to mobilize labor votes in support of principles offered greater promise. We began to systematize and direct more efficiently the methods we had been using. We drafted a bill of grievances which we submitted to Congress and told them that if they did not heed our pleas we would appeal to the

electorate. We developed a system of Congressional records so that we might advise all trade unionists how their representatives had voted on measures of special concern to labor and urged them to use their ballots to further the best interests of labor. It was in 1906 that the Federation entered the Congressional campaign.

When the Presidential campaign opened in 1908 the executives of the Federation submitted to the platforms of both parties labor's legislative needs and asked their endorsement. The reactionaries ridiculed us and tried to discourage us; the radicals tried to persuade us to independent labor partyism. But the Federation continued unperturbed. Changes began to happen in Congressional elections; outstanding reactionaries encountered opposition and frequently defeat at the polls.

A new voice had challenged the consciences and intelligence of voters. Organized labor earned a respected standing politically. This, in turn, helped workers identified with both parties to get more sympathetic consideration for labor proposals. By 1914 we had helped effect such changes in Congress that there were incorporated in the Clayton Antitrust Law labor provisions intended to correct the two major grievances from which we had suffered. Six years is a short time in which to secure action on any important subject. We feel a justified pride in the record. That the Clayton Act has not been found adequate is quite outside this discussion of political tactics. The important thing is that we have developed an effective method of meeting our political needs.

In the Last Campaign

In the last Congressional campaign we supplied labor in each district with labor records for candidates for the Senate and House of Representatives. We have had letters from many elected, attributing the success to labor's support. An illustration of how the method works is the following: Of fifteen candidates for the Senate, friends of labor, only one was defeated in the last campaign.

We have secured the enactment of a long list of labor laws. Major laws in this list include the creation of a Federal Department of Labor, establishment of postal savings banks, Federal commission on workmen's compensation and liability and the Federal compensation legislation, parcel post, vocational education, strengthening the Bureau of Mines, promoting railroad legislation such as the Adamson and Howell-Barkley acts, the Watson-Parker bill, extending the eight-hour day to various groups of Federal employees, organic law for Porto Rico, war risk insurance for enlisted persons in the World War, creation of the women's bureau, vocational rehabilitation, etc. This list of Federal legislation has been supplemented by State laws protecting the interests and rights of labor under State jurisdiction.

In addition to Federal organization to secure Congressional legislation, State federations of labor have been pursuing the same tactics within States. Our problems of securing legislation with sovereign States, a sovereign Federal Government and a Supreme Court undertaking to interpret the meaning and pass upon the sovereign Federal Government and a Supreme Court legality of all legislation, makes progress complex and a bit slow.

Outstanding in importance is compensation legislation. In every State except four, compensation law protects wage earners against accident losses. Compensation procedure is simple and avoids legal difficulties that obstruct justice. We have aided in the development of State labor departments and the compilation of labor statistics. We have looked to the government for certain major services and have expected our trade unions to make the most of the opportunities secured.

The final criterion by which the political and all other policies of the American Federation of Labor are to be judged is the well-being that has been brought into the home and work lives of those who carry out work orders.

Striving for Fundamentals

We find distinct progress in reducing the work time—both the work week and the work day. We have doubled the application of the five-day week in the past two years. A new standard of a six-hour day for men in railroad operating service has been raised. Comparing our progress with that of unorganized groups, we find proofs of the wisdom of our methods.

Wage incomes in the United States are higher than in any other country. The index numbers of comparative real wages in the following cities based on that of London, for October, 1928, are:

Amsterdam	83	Milan	48
Berlin	85	Ottawa	152
Brussels	55	Philadelphia	189
Copenhagen	107	Prague	50
Dublin	107	Rome	41
Lodz	53	Stockholm	86
London	100	Vienna	48
Warsaw	43		

These indexes are calculated from returns of wages and retail prices with allowance for rent.

Our trade unions expended in benefits through their central offices the sum of \$28,269,790 in 1928. This does not include benefits paid by local unions.

Standards of living are higher in the United States than in other countries. This is due to increased production and higher wages. The technical

progress of the past years has put in our markets things that provide comforts and opportunities for wage earners. We have achieved a standard of living that includes the automobile. There is in the United States one automobile for every five people. A study in a typical community showed that 29 per cent. of the automobiles were owned by laborers, firemen, artisans and motormen. Since 1913, 11,000,000 baths have been installed in the United States; there are 11,500,000 residence telephones; radio sets and phonographs are common in labor homes throughout the United States.

Higher Standards Still

The major problem of the present age is to finance the consumer. Mass production relies upon mass consumption. Unless wage earners, who constitute the mass of the population, have incomes that enable them to enjoy the products of our land, we shall find our progress checked by an oversupply in our markets. The problem itself indicates a new development in progress, which we confidently expect to see result in higher standards of living for all.

Organized labor more than any other group was active in establishing our policy of a free public school system. We have continued to urge expansion of educational opportunities. Our program now includes provision for adult education.

The estimated expenditures for education in the United States for 1925-26 were \$2,744,059,000. This was an increase of 250 per cent. over 1913-14. During the same time enrolment in elementary schools was increased to 2,984,000, or over 17 per cent.

More leisure and higher national standards of life we hope to turn into higher opportunities for wage earners and all other citizens. We believe that the progress of any one group is interdependent upon progress in all other groups. As organized wage earners, the American Federation of Labor plans to use its political strength to secure continuously greater opportunities for individuals and organized constructive groups.

4. WHY WE NEED A LABOR PARTY IN AMERICA ²²

An increasing number of men and women in the United States at the present time are becoming tired of the existing political line-up and its social results. They are becoming tired of political governments—local, state and national—that do little or nothing to bring security to the great masses of our people. They are becoming tired of the growing and inadequately regulated power of private monopoly. They are becoming tired of supporting the special privileges which overburden the many and bring

²² By Paul H. Douglas, Professor of Industrial Relations, The University of Chicago. Printed with the permission of the League for Independent Political Action.

untold riches to the few. They are becoming tired of the lack of any fundamentally constructive program for our sick industries, among them agriculture, textiles and mining. They are becoming tired of the constant use of the courts and other forces of government for the repression of free speech, free assembly, freedom of peaceful action so necessary to the many who are engaged in the struggle for a good life. They are becoming tired of an economic, military and diplomatic policy that carries in it the germs of another war.

I. Adventures in Old Party Politics

They have sought repeatedly to secure relief from the two old political parties—Republican and Democratic. In 1908 many of them or their forebears supported Bryan, because of his promises to curb anti-labor injunctions; but by 1912 they had persuaded themselves that they were indeed standing at Armageddon, not only with Roosevelt, but with the Lord as well. Four years later, it was again the Democratic party under Wilson which was the hope of pacific liberals. In 1920, like Stephen Leacock's hero, they mounted and rode off in all directions. Some supported Cox in order to ensure our entrance into the League of Nations. Others, at the advice of Hoover and Hughes, rallied behind the statesman from Marion, in order to obtain the same end more effectively. Still others felt that Harding was just the man to end the imperialistic policy in the Caribbean which had been fostered by their erstwhile hero, Woodrow Wilson. A few supported the struggling Farmer-Labor party, only to desert it immediately after election.

In 1924 hopes ran high for the hastily organized candidacy of La Follette, but when the Progressives found that only between four and five million others had voted similarly (or approximately as large a proportion of the votes as the Socialist party has at times commanded in France!) they were immediately plunged into the deepest dejection. Some took the boat for Europe; others, like Candide, cultivated their gardens. In 1928 there was again hopeless division among progressive forces.

From these experiences, many Progressives who supported the old parties have discovered certain things. They have discovered that usually, in voting for "the lesser of two evils" among the candidates of the old parties, they were supporting candidates who had no more chance of success than the humbler parties of labor which they had rejected. They have discovered that in those few instances when their hero in the old parties succeeded, events almost invariably showed him to be far less progressive-spirited than they had imagined, while the terrific pressure from selfish business and nationalistic interests to which he was inevitably subjected usually alienated him sooner or later from the cause of the masses.

Their experience has thus taught increasing thousands that, in trying for social change through old party candidates, they have been indulging merely in aimless political philandering. They have been throwing their votes away. They have actually lost strength and have failed to construct any real political home.

The Lesson from British Labor

In recent years the thinking voters, animated by a desire to make politics count for the common good, have been increasingly impressed with the slow growth extending over forty years of the British Labor party, culminating in its brilliant maturity. They have realized that its present strength is due largely to the maintenance of an independent organization through years in which there was absolutely no prospect of political success. There were Worldly Wisemen galore in England during the nineties who whispered to Keir Hardie and his followers that it was folly to set up an Independent Labor party, and that labor should, instead, pin its faith upon either the social-reform sympathies of Joseph Chamberlain or the Gladstonian Liberalism of Morley and Campbell-Bannerman. But Keir Hardie and his men had what is rarer than intellectual subtlety; namely, moral courage, and they knew that they were building, not for a few years only, but for decades—indeed, for all time itself. It was the presence of the Independent Labor party which later furnished the political nucleus upon which the trade unions, in their resentment over the Taff-Vale decision, could build, and it has ever since impregnated the larger body with the stimulus of its own imaginative devotion.

Thus both the negative experience of America and the positive experience of England have demonstrated that, if a strong labor party is desired, the way to secure it is patiently to build through the years an independent and aggressive political party, and not to swing constantly from one of the old parties to the other for those short-run gains which are generally illusory.

The Parties of the "Interests"

As a plain matter of fact, it is idle to hope that either the Republican or the Democratic parties as at present constituted can ever be forged into honest or progressive instruments. High-minded individual leaders may appear from time to time within the parties, as in the case of Wilson and Hoover, but their powers will always be greatly limited and their permanent influence slight. The fundamental composition of the party machines is in fact such as to prevent any effective reform.

Thus the Republican party is dominated by the manufacturers and financial interests of the East who have been able to hold the farmers of the Middle West in thrall for the last sixty years through the memory

of Abraham Lincoln and the Homestead Acts. Their state organizations are in general composed to an extraordinary degree of corruptionists and reactionaries. In Maine, for example, the party machine is now controlled by the Insull interests, while in Rhode Island the large textile and banking groups dominate the organization, and, by maintaining a system of rotten boroughs, prevent an eight-hour law from being enacted by the legislature. To avert this and to prevent a redistribution of seats, the Republican members of one branch of the legislature fled out of the state a few years ago to the Berkshires.

In Connecticut, the Warwick of the organization is Mr. J. Henry Roraback, who is the head of the dominant public utilities group. In New York, the chairman of the state committee has until recently been Mr. H. E. Machold, connected with the power interests. The case of Pennsylvania is notorious. The Vare machine in the eastern part of the state and the Mellon machine in the western compete for the honors in corruption, while the reactionary figure of Mr. Joseph Grundy permeates the politics of the entire state.

Equally malodorous is Ohio and its notorious gang. The immediate group of cronies who surrounded and disgraced President Harding have nearly all come to an end which almost convinces one of the retributive nature of fate, but the system which produced them and the Hanna and the Foraker machines before them is still grinding out its docile and corrupt hacks. If Hynicka has been temporarily checked in Cincinnati, Maschke is still dominant in Cleveland and Walter Brown in Toledo.

Moving westward we come to Indiana, where the Ku Klux Klan still largely dominates the Republican Party and where high officials are apparently always in the process of either starting towards or leaving the penitentiary. Next comes Illinois which differed from Indiana for a long time only in that its corresponding officials should have been in the penitentiary but weren't. Illinois Republican politics are as a matter of fact perhaps the most sodden in the country. Small, Thompson, Crowe, and Barrett are public disgraces. Ruth McCormick is a personally charming but reactionary figure, while Deneen is commonplace and uninspiring.

These are the groups which control the Republican Party and they will in the future continue to subdue the La Follettes, the Norrises, and the Borahs who from time to time may arise to question their control.

Wooing the Democratic Party

Nor is the Democratic Party much better. It has its sprinkling of liberal spirits, but it is basically controlled by conservative Southerners and the corrupt political machines of the North. Both of these groups hate each other, as the campaigns of 1924 and 1928 testified, and neither has any constructive forward program for the future. In the North, the

proud boasts of a New Tammany, which were advanced during the last campaign by the pro-Smith liberals, have completely collapsed. The district leaders have shown themselves to be in complete control, with their election of Curry to the leadership and the continuance of the inefficient playboy, Jimmy Walker, as the mouthpiece and vaudeville artist for the group.

In the neighboring state of New Jersey, Hague of Jersey City continues as the dominant figure and his refusal to admit the sources of his wealth furnishes more than a ground for suspicion as to its origin. In Indiana, the Taggart machine was never known for its integrity, while in Illinois the Democratic factions are about as waterlogged with corruption as are the Republican George Brennan made many bi-partizan deals with the Thompson-Crowe factions and his supporters included many of the toughest elements in Chicago, of whom one has only to mention Tim Crowe, the late chairman of the Sanitary Board and lavish spender of public money for fancy parties. Only babes in the wood can expect to forge an instrument for decency and progress from such a political aggregation as this.

Capturing the Primaries

Despite their belief in the hopelessly corrupt character of the two old parties, certain progressives have urged that much could be accomplished by launching a mass movement to capture the old parties through going into their primaries as was done by the Non-Partizan League a decade ago, in the Northwest. Whatever the advantages of this form of action, an increasing number of progressives are realizing that the disadvantages are far greater.

Canceling Your Vote

1. In the first place, the policy of trying to capture one or the other of the old parties generally results during presidential elections in a very considerable canceling of votes cast by men and women who think similarly, but who, for strategic reasons, are affiliated in different states with different political parties. For local and state conditions largely determine which party the labor and progressive forces will attempt to control and at the time of the presidential elections and indeed at many state elections, the progressive and pro-labor groups find themselves in different camps in different districts. This situation was strikingly evidenced in the elections of 1920. In North Dakota, the members of the Non-Partizan League were Republicans, in Idaho and Montana they were Democrats, while in Washington and South Dakota they were members of the Farmer-Labor Party. In Wisconsin and New York men with much the same political philosophy supported Debs and the Socialists. The ridiculous spectacle was thus pre-

sented of people with very similar beliefs supporting no less than four different presidential tickets.

It may be argued that there is no necessity for the leaders of a party in one state to support the presidential candidate of that party and that it would be possible for labor and progressives to be affiliated with different parties in different states and yet for them to break over party lines in a national campaign to support a common presidential ticket. This was done for example during the last campaign by Senators Norris and Blaine. But this view overlooks the mighty influence of sentiment and patronage which serve to keep the state leaders faithful to their respective national tickets. The voters who are Republicans and Democrats by inheritance and sentiment may support a man who bears this label, even though he disbelieves in the historic principles of their party. But such an inward heretic must pay at least a decent outward tribute to the totem poles of his party, and if he openly works for candidates who wear opposite political stripes, the rank and file will attack him with the utmost vigor.

The second pressure which operates to produce regularity is the power of patronage which the executive possesses. If a party leader in a given state supports the candidate of another party for the presidency, then he cannot expect the candidate of his own party, if victorious, to reward him by allowing him to name those who are to fill the federal offices. The executive will naturally want to build up a group in that state which will be loyal to him and to his national party and the available jobs will consequently be used to attain that end. Since jobs furnish most of the legal tender which keeps the present organization together, the leader who has been deprived of patronage finds his own position greatly weakened and tends either to go down in defeat or to capitulate.

The attempt to bore from within the old parties, the progressive is learning, inevitably leads therefore to a mutual frustration of purposes. This is almost equally as true of different localities within a state as it is between states.

Capitalism in the Saddle

2. Certain advocates of the plan of capturing the old parties in the primaries naively believed in the past that the other groups were not organized and that labor and the progressives really held the balance of power. The truth of the matter, of course, is that capital is now far more cohesively and powerfully organized than labor. It exercises more influence over the two old parties and their candidates because it has abundant funds which it can either give or withhold. The old parties are in general much more afraid of estranging the business vote than they are of alienating the labor vote. For the business interests are far more non-partizan than are the workers. If the former are generally Republicans, it is because that party is so identified with their economic interests that when they

support it they are really supporting themselves. But let the Republicans falter seriously in any locality in the protection of their interests, and the business group will turn to the Democratic party. The latter is generally delighted to be taken up by so affluent a suitor and will generally promise to do as it is told.

Frequently the business interests find it safest to own both groups outright. Such has been the more or less tacit practice in Chicago. In the days of Roger Sullivan, who was a high official in the Gas Company, the public utilities were able through him to control the Democratic Party for a considerable percentage of the time. Through Lorimer and later Thompson, they were at the same time able to exercise domination over the Republicans, except for such sporadic outbursts as that led by Charles Merriam in 1911. Individual laborers on the other hand cannot be delivered by their leaders to one party or the other with the same fine impartiality as that displayed by the business group. Less inclined to think in coldly realistic terms than their employers, they are far more influenced by political shibboleths and war cries, by advertisements supplied out of campaign funds, and by the warming influence of political personalities.

The net result is that the two old parties are more afraid of estranging the business groups than they are the workers. In consequence organized capital is almost invariably able to get either an open or secret pledge to maintain or to put through policies which are favorable to it. Labor will be put off with soft words and generalities which, when the test of action comes, seldom bear practical fruit.

Aid and Comfort to Backsliders

3. Progressives are also finding from hard experience that there is far greater danger of backsliding among the political representatives of labor, if they are elected to office as representatives of the old parties, than if they are chosen as representatives of a continuing progressive and labor party. A liberal or radical who is elected to office as a member of an old party is subject to many insidious temptations to betray the group which elected him. He is surrounded by party politicians with whom he is forced in some degree to affiliate. He is exposed to the blandishments of the social lobby of the wealthy—a type of temptation which is peculiarly strong in Washington and which frequently robs Senatorial Samsons of their radical virility. Not having a firm and cohesive group behind him, he tends always to be in a very precarious position and is always in great danger of being unhorsed and denied a renomination. Since nearly every one who once tastes public office wishes to continue, it follows that unless he is a man of unusual principle, he will look for allies from other and from frequently contradictory sources. He thus tends to become a compromiser and a trimmer and the virtue gradually passes out of him.

It would be idle to pretend that all of these dangers would be removed if such a man were to become the representative of a labor party, but they would certainly be lessened. The British Labor Party has for example had its David Shackleton; its G. H. Roberts; its G. N. Barnes and its Frank Hodges. But its casualties have not been so heavy as those amongst the ranks of American politicians who have first climbed into office through the labor vote. The reason is plain. The British have had behind them a separate party organization which both encourages and admonishes them. If their representatives serve faithfully, they are virtually sure of re-nomination for as long a period as they wish. They may look forward therefore to a lifetime of appreciated service within the party and to the opportunity of sharing whatever good fortune may befall it. This produces a greater stability of character on the part of the representatives and consequently makes the advocacy of labor and progressive causes more coherent and more continuous.

Failures of Compromise

4. Under the policy of trading with the old parties for the support of a legislative program, labor frequently supports candidates who in general are unworthy but who, on a particular set of issues, will agree with labor. Here again Illinois furnishes a lurid example. John Walker and Victor Olander, President and Secretary respectively of the Illinois Federation of Labor, are honest and devoted servants of the labor movement; but by the exigencies of this type of politics they were forced to become the political allies of the malodorous Len Small and the equally notorious Frank Smith. They found the Small group in control of the legislature and of the state but menaced by the Deneen faction and attacked by the *Chicago Tribune*. In return for the support of labor, Small either explicitly or implicitly promised to do the following things: (1) to prevent the passage of the bill creating a state constabulary, which was being pushed by the Illinois Manufacturers Association and other anti-union groups; (2) to pass a law which would prevent injunctions from being issued to restrain peaceful picketing; and (3) to see to it that the administration of the miners' certificate law, which is the chief instrument by which the coal mines of Illinois are prevented from going non-union, was kept in hands favorable to the miners' union. There was perhaps also an understanding that Small would pardon certain corrupt labor officials such as William Quesse who had been convicted. Walker and Olander, though not approving of these men, felt the pressure of the unionists as a whole to be so strong that they were compelled to seek a pardon for them, although by their record these leaders were guilty of disgracefully dishonest and criminal practices.

Labor, therefore, supported Governor Small in his campaign for re-

nomination and also supported Colonel Frank Smith in the race for the Republican Senatorial nomination. They thereby allied themselves with men who were of a very low order of political integrity. Smith, as all the world now knows, was the favorite of Mr. Samuel Insull, whose utilities Smith, as chairman of the Illinois Commerce Commission, had been regulating, and his campaign was indeed largely financed by Insull.

Nor did labor gain in the long run from its support of Governor Small. The bill which ostensibly prevented the issuance of injunctions against peaceful picketing has been vitiated in practice by the determination of the courts to decide for themselves what constitutes "peaceful" picketing and to issue injunctions against all acts which they do not regard as "peaceful." The Illinois labor movement has thus been besmirched, while little tangible gain has been secured in return.

The same is true in New York where Tammany judges time and again have issued sweeping injunctions against every form of picketing, while the Tammany controlled police have during the past few years arrested many hundreds of strikers engaged in exercising their rights as citizens.

Trading the Labor Vote

5. Frequently, however, the results of trading with the old parties are even more disastrous. John Walker and Victor Olander are honest men who neither profited personally nor sought to profit from their support of Smith and Small. But all too frequently, the leaders try to trade labor's support in return for jobs or money for themselves. Thus in Chicago, Oscar Nelson, the Vice-President of the Chicago Federation of Labor, is Mayor Thompson's floor leader in the Board of Aldermen and regularly tries to line labor up behind the Thompson-Barrett program. The official leaders of the labor movement in New York and Boston are in close alliance with Tammany in the former city and with the corrupt coteries who, with rare interruptions, control the latter. Similarly in California Mr. P. H. McCarthy, the erstwhile czar of the San Francisco building trades unions, was discovered in 1922 to have accepted a large retainer from the utility interests to oppose a publicly owned super-power project. Sidney Hillman, the president of the Amalgamated Clothing Workers, once summed up the situation succinctly when he said, "non-partizan political action means giving to the labor skate the power of selling the labor vote."

Retards Education

6. Finally, and perhaps most important of all, progressives are discovering that the attempt to bore from within the two old parties deprives labor of both a continuing and a permanent political organization and the ardent enthusiasm which are both needed to educate the public mind to the

necessity of great and fundamental changes in our economic and political organization. Our government cannot be made a creative agency in promoting internal welfare and external peace without an outpouring of earnest spirit and of research, together with long continued and intelligent education and organization. It is virtually impossible to build or man such an organization if it merely aims to raid the primaries of the two old parties and then choose on election day what is generally only the less of two evils. The British Labor Party could not have exercised the influence on English public life, which it has, had it remained what John Burns would have made it, namely, merely a group within the Liberal Party. A "coming-out" from the two old parties focuses attention sharply upon the issues for which the group stands and the party organization can then carry on a concerted program of education which is impossible for a loosely organized bloc.

A growing number of progressives have thus concluded that in the long run the support of the old parties is both sterile and corrupting and have resolved to break themselves of the habit of never looking forward to the day after tomorrow and instead to plan for the America for the future.

Moreover many progressives are now realizing that the building of a separate progressive-labor party is a powerful stimulant to the old parties to advocate and to put into effect certain immediate reforms, lest votes be taken away from them by the new party. The creation of such a party seems then not only ultimately to promise more but also to yield greater immediate returns as well.

II. A Program for the New Party

The party destined to take the place of the Republican and Democratic parties in the government of the country must be based on the needs and aspirations, conscious or unconscious, of the great masses of industrial workers and farmers and reflect the ideals of all who would abolish the gross inequalities and wastes and autocracy of modern industrial civilization; and which would build up in America, industrially as well as politically, a government of the people, by the people and for the people.

Its immediate program must seek to cure some of the worst evils in present-day America. To that end it must include demands for:

1. The protection of the workers by hand and brain against the four great risks of industry and indeed of life itself—accidents, illness, old age and unemployment. The United States is years behind most other civilized countries in the protection of its workers. The increasingly rapid changes in industry, leading to technological unemployment; the scrapping of men in middle age in our heavy industries, after ten or fifteen years of ex-

hausting toil, the refusal of great numbers of corporations to employ new workers after reaching forty, forty-five or fifty years of age—these and other factors are leading to increasing insecurity as the years go on. Society, not the individual, should assume the burden, through various forms of social insurance of these risks which now bring so much tragedy into the life of tens of thousands of our people. Supplementing social insurance, a third party program should call for a long-range plan of public works in city, state and nation and a comprehensive system of public employment agencies.

2. The restoration of an increasing share in the wealth created by society to the community for social purposes, through the imposition of higher income and inheritance taxes on the higher income levels and of land values taxes. Society should have at its disposal for health, for educational, for recreational and other public activities a far larger fund than it can now depend upon. Higher taxation would increase this fund and at the same time lessen the unjust inequalities of income which are vitiating our whole national life.

3. The reorganization under public ownership and operation of such strategic industries as are now being grossly mismanaged or which are gouging the public through excessive charges and the regulation of which has broken down. In the forefront of these two types of industrial undertakings come the chaotic coal industry, and the highly concentrated electric power industry. Domestic consumers in the cities of northern New York under private ownership have to pay two to three times as much for their electricity as do housewives in Ontario cities, where electricity is generated, transmitted and distributed by public agencies, while large power consumers pay from 60 to 170 per cent more in the New York centers and large commercial users pay from about 40 per cent to more than three times the costs for similar service in the Ontario cities.

4. The freeing of labor from unfair legal restrictions upon their activities which take such forms as yellow dog contracts, the virtual prohibition of boycotting and effective peaceful picketing, and the rigorous use of injunctions to hamper almost their every action. The very life blood of the labor movement beats through the channels by which it may organize and consolidate its group concerns. If these are choked, the labor movement cannot live; and the protection of labor in these essentials should be a first charge upon any party which honestly seeks to promote the basic interests of the laboring millions.

5. A program of farm relief which will reduce the disparity between urban and rural prices, not by giving a bonus to stimulate the export of food products and thus artificially increase the prices of agricultural goods, but by removing as rapidly as possible the high tariffs on manufactured goods. This will at once lower the prices of the goods which the farmer

buys, such as textiles, farm machinery and fertilizer. Moreover by permitting foreign countries to sell more manufactured goods to us, we will be able to sell more agricultural products such as cotton, wheat and pork to them. This will bring higher prices to farmers on their agricultural commodities and thus help in a double way to restore the balance between industry and agriculture which is so sorely needed. The agricultural program of a true party of labor and farmers must also include far greater aid to cooperative effort than has hitherto been attempted. The party's program on publicly owned electrical power, on taxation, on public works, on social insurance, etc., would also constitute a direct boon to the rural population.

6. The freeing of Western civilization from the menace of another war. Unless the forces of destruction in our present nationalistic system are checked, the Western World at best will be hurried into another far more disastrous war than that from which we emerged a decade ago. Despite the peace efforts of such individual leaders as President Hoover, neither of the two old parties represents any earnest desire to work for the limitation of armaments nor for a policy of conciliation with the countries of Europe or of Central America.

More concretely, the party should insist on withdrawal of the marines from Haiti and Nicaragua, the removal of financial and military dictatorships, sponsored by the citizens or government of the United States, from Latin American countries and the restoration of their national sovereignty; the carrying out of America's promise to restore Filipino independence; the radical reduction of naval and army forces and the government building of naval vessels under government auspices to the end of taking the profit out of armaments pending the day of complete disarmament; the recognition of the Russian Republic; the entrance of the United States into the League of Nations; and the organization of international economic commissions on raw materials, tariffs, investments, etc., in an attempt to minimize economic friction among various countries.

7. The reorganization of the judicial system of the country to the end that the courts may work more speedily, more justly, and with less autocracy than in the past.

The progressive-labor party should likewise possess a philosophy. Nor can this any longer be an individualistic, *laissez faire* philosophy, formulated to fit a primitive agricultural and handicraft civilization, and based on the false hypothesis that we are still living in the days of "rugged individualism." We are now living in the twentieth century, in the days of huge aggregations of people in crowded cities, of enormous private monopolies and combines. Only a philosophy of coöperation, of collectivism, of associated effort for the common good, is applicable to the needs of the common people to-day. And this must be the social philosophy underlying the great future party of the masses.

III. The New Party and the Socialist Party

Finally, the modern progressive is asking himself what form the new political alignment should take.

There are some who believe that the party they are looking for is already in existence in the form of the Socialist Party and that it is the duty of all economic progressives to get into that party and strive to make it the effective organ of the economic interests of the farmers and the workers by hand and brain. Here is the machinery, they say, ready at hand; all that is needed is more workers and the movement will grow to power.

The Socialist Party has been and is a useful force in American political life. During the period 1900-1906, it was the pioneer in advocating social legislation and its efforts were more than justified by the stimulating effect which it had on the programs of both the Democrats and the Progressives. Although the former rather rigid membership requirements deterred many thousands from joining it, these barriers have now been swept away by the new constitution which requires as a prerequisite for membership only a belief in the democratization of industry and in independent political action by the workers of hand and brain. In the last national election, both its platform and its candidates represented the very best spirit of progressive economic thought. Moreover, by the revision of its constitution, the Socialist Party can now accept groups as affiliated members and can in turn affiliate with other political bodies which are working in a bona fide manner for the same ends.

The believer in economic progressivism can therefore only hope that the Socialist Party, as at present constituted and directed, will grow rapidly in strength and influence. An indication of just how valuable its services may be is afforded by the excellent manner in which it has administered the municipal affairs of Reading and Milwaukee, two of the cities where it is now in power; by the work of the hundreds of Socialist aldermen and legislators who at one time or another secured office in Eastern and Western states, and by the magnificent educational campaign conducted by Norman Thomas and his running mates during the New York municipal campaign of 1929, resulting in a vote of 175,000. The Socialist Party can therefore be depended upon to form an important element in any progressive political alignment and it should be encouraged to become as strong as possible.

When the new political alignment develops, the Socialist Party may well find that it can render its best service to the movement of independent political action by occupying within the larger grouping a position similar to that of the Independent Labor Party within the larger British Labor Party. While the I. L. P. has a separate organization with about 30,000 ardent members, it is, to use a mixed metaphor, at once the yeast and the

spearhead of the larger organization of which it is a member. It carried on a continuous campaign of education in most of the Parliamentary districts and furnishes indeed a very large percentage of the candidates. So could the Socialist Party operate in this country. Its strength would then further the general ends of the movement and the stronger it was, the better it would be for the other elements in the movement. Yet it could at the same time maintain its own individuality and in its program could step out ahead of the larger and necessarily more slowly moving body.

Moreover, in these localities such as Milwaukee, Reading and New York City where the Socialist Party has already established itself as the real progressive political force, it should by all means not only be allowed to continue as such but the full strength of the movement should be thrown behind it. As it develops strength in other cities it should be accorded similar cooperation.

Relation to Minnesota Farmer-Labor Party

In Minnesota the Farmer-Labor Party is to-day the party of opposition representing progressive action. In six years it has elected two United States Senators and three Congressmen, and has to-day approximately one-third of the members of each house of the legislature affiliated with the party. It controls or has a large place in many of the municipal administrations. It is likely to elect the next governor of the state. It constitutes the party of vision in Minnesota, and the Democrats have practically disappeared from the picture. In any new alignment, therefore, that element will constitute the Minnesota contribution to the new party and the fullest cooperation should be extended it.

IV. Recognized Difficulties Are Involved

Economic progressives who have concluded, as large numbers have, that a new political alliance should be developed, and that work on this alliance should be begun immediately, are under no illusions regarding the element of time. They know they are not facing the work of a day or a year. In the case of Great Britain they realize that more than a generation elapsed between the formation of the Independent Labor Party and the victory of 1929, although they recognize that, when a movement once gets started in America, it usually gains momentum faster than in other countries. An extreme instance of this rapidity of movement is of course the rise to power of the Republican Party in the early sixties, when it stood for a new political concept and when it incidentally indicated that despite the two-party tradition in this country a third party with an ideal can become a first party.

Progressives face obstacles perhaps greater than those abroad, which

must be overcome before the party can be a dominant force in American political life. There is the higher standard of living here, despite the tragic condition in the textile, mining, farming and certain other industries. There is the drift of many more capable workers from the ranks of labor to those of the capitalist class. There is the lack of trade union organization among the unskilled, and the control of the American Federation of Labor by the more conservative leaders in the skilled trades.

Indeed, as long as skilled trades like the building crafts, the molders, and the more skilled printing crafts control American labor policy, a real obstacle will be found in the way of a labor party in America. For if a labor party were formed, it would be led inevitably by the very laws of its being not to stop merely with freeing the economic power of the unions. In order to provide itself with campaign material to secure the vote of unskilled labor, it would inevitably be moved to advocate collectivism and state control of industry. Political labor parties, like trade unions, must have something with which to occupy themselves. Once such an organization is set up, it will be forced to create issues which run strictly counter to the political philosophy of the present leaders. Forays into the primaries of the old parties in order to redress individual grievances can be controlled more effectively, and no machinery is created to thirst for further political power once the immediate end has been obtained.

Broadhurst and Gompers Identical

British labor during the seventies and eighties was dominated by similar crafts and had an identical policy. The carpenters, the masons, the iron-molders, and the engineers (machinists) together with the cotton weavers and spinners, under the leadership of Henry Broadhurst, George Howell, and John Burnett controlled the Trade Union Congress. Having secured what they believed to be immunity from the law by the Employer's and Workmen's Act of 1876, just as Mr. Gompers believed he had attained immunity for American labor by the passage of the Clayton Act, the English leaders settled back and proceeded to oppose the state regulation of hours of work, to vote down proposals for universal manhood suffrage, and of course, to regard collective ownership of industry as anathema.

It was the organization of the unskilled, first in 1886 and increasingly since 1900, that swept these leaders and their followers from power and replaced them with Ben Tillett, J. R. Clynes, Will Thorne, Robert Smillie, and others representing the humbler workers, who had come to demand that the state should cease its ostensible neutrality and should be used to redress the weakness in the economic bargaining power of the unskilled laborers.

The extraordinary similarity of Mr. Gompers to Henry Broadhurst

is indeed most striking, and those who think that the Gompers-Green policy is an anachronism should reflect upon the fact that Broadhurst was the idol of the British labor movement less than forty years ago.

Other obstacles in the way of a progressive-labor political movement are the racial heterogeneity of the working class population and the political structure of the country—the division of the country into forty-eight states, each with its own legislature the preoccupation of many workers with state affairs; the veto power of the Supreme Court; the existence of the primary system and the lack of proportional representation, with the consequent fear—however ungrounded—of “throwing one’s vote away”; and the election of the Chief Executive by the people, rather than by the Cabinet (the cabinet form of government in Europe has often given a small handful of progressives very large powers over the selection of the Premier and the make-up of the cabinet).

The new progressive, while facing these obstacles, realizes that they can be overcome. Economic and social forces are on his side. The growing insecurity in our midst, the increasing development of private monopoly, the increasing exhaustion of our natural resources for lack of a conservation policy, and the danger of imperialism, with our development as an investing nation—are all forces accentuating the need for a new alignment.

If progressives take advantage of this situation and with intelligence, patience and unselfish devotion consecrate themselves to the task of building up the party of the future, nothing can stand in the way of their ultimate triumph. There is no richer field of political effort than this for those who want to make their political activities accrue to the benefit of that great society of which we are all necessarily members.

V. Some Methods for the Task Before Us

The genuine progressive is not only deciding, in view of the situation as a whole, to cast his lot with an independent political movement; he is also beginning to block out a method by which the party may take on form and substance. The following lines of attack are appealing to him with increasing force:

1. Every assistance should be given to the organization of skilled and unskilled labor, as a better basis for a powerful progressive-labor party.

2. A working alliance should be developed between the industrial workers of the city and the farmers. Both groups, as before was indicated, are economically interested in a taxation program which ensures that an increasing amount of the social surplus be used to promote education and public health. Both would be benefited by a publicly owned giant power system which would furnish them power at cost. Both are deeply concerned in having a peaceful and non-imperialistic America.

In addition both would gain from state insurance against natural calamities and technical changes, and from the fostering of cooperatives.

They would both gain also from a reduction of the tariff. The reduction of tariff on manufactured goods would lower the prices of the goods which the farmer buys. The worker would be benefited in the last analysis since, with the tariff greatly reduced, labor and capital would tend to flow into those lines of industry where the natural and comparative advantages were greatest, but which were not before fully exploited because of the drafting off of productive reserves by the tariff into artificial channels. Some shift would have to take place in the meanwhile, but with proper measures of social insurance, with competent public employment agencies, these shifts could take place with little actual hardship. And as the party grew the gains to both groups through fundamental change would be incalculable, both in status and actual well-being.

3. An appeal should be made to the progressivism of the middle class and professional groups. Such a program as is outlined would be of benefit not only to manual workers but to most professional workers and to large numbers of persons now conducting business in these days of uncertainty.

4. The social idealism of the churches might also be harnessed in the task of improving the conditions of those who suffer most in our society.

5. This new Party should not content itself with purely national or state issues but should work out municipal programs and engage vigorously in municipal elections. Parties, as Frank R. Kent has pointed out in *The Game of Politics*, are primarily built from the precinct up and depend on workers in small local units for their vitality and strength. But participation in local politics is an end in itself, as well as a means towards national strength. The two old parties tend to be even more corrupt in local than they are in national affairs and most American cities need a civic house-cleaning. Reforms in the methods of assessing property are needed to relieve the small home-owner of disproportionate payments. Political employees need to be dropped from the pay rolls. The schools need to be administered more democratically and the streets paved and cleaned more economically. Our police systems are notoriously inefficient and corrupt. Reforms are needed in the provision of municipal services, while in the provision of electricity and in the furnishing of reliable local transportation and decent housing for the workers, a rich field for municipal collectivism is opened up. These tasks and many others offer a great opportunity for progressive-labor parties to operate on a local scale. The immediate and direct interests of citizens can thus be harnessed in the cause of local reform and federated on matters of state and national concern.

Emphasize Congressional Elections

6. A campaign during the off years in a number of strategically situated congressional districts would be a very valuable means of building up a congressional group which would push fundamental issues to the fore. The movement has been crippled in recent years by the fact that only the Presidential campaigns have been stressed. The Progressive Party in 1912, the Farmer-Labor Party of 1920 and the La Follette movement in 1924 were necessarily organized hastily while the weakened character of the organization of the Socialist Party prevented much active work on their part in the congressional elections of 1926. But while Presidential years may create an enthusiasm for a third party which might be lacking at other times, it is also true that there is always an obstacle in the fear, no matter how unreasoning and shortsighted, of throwing away one's vote, and allowing the more conservative candidates to get in the seats of national power.

It would be highly desirable therefore for a vigorous progressive labor party to pick out at least ten or twelve strategic congressional districts where there are strong local movements as perhaps in St. Paul, Duluth, Reading, Buffalo, New Bedford, Milwaukee, Los Angeles, New York City, and possibly Chicago; and, in coöperation with the local organizations, to set up candidates. A national platform could be drawn up and stressed in all the districts, together with specific important local issues. Funds could be raised on a national scale and speakers and literature sent into the districts. Out of a dozen or so candidates, it is probable that at least three or four congressmen could be elected. These men would then be able to stress the party's demands in Congress and would consequently attract public attention to the merits of the program to a degree which, without such a sounding board, would otherwise be impossible. They could moreover keep a white light of criticism constantly playing upon the two old parties and contribute to the latter's legitimate discrediting.

In the attempt, therefore, to gather together the new party forces for the campaign of 1932, the congressional elections of 1930 should be stressed. Since less is at stake, more progressives will be willing to vote for their party candidates than in a Presidential year and any success attained then will inspire large groups to go on to the following campaign. Because of the notorious tendency of Americans to flock to the support of a party which promises to win, once the Progressive-Labor party can point to concrete successes, latent support will undoubtedly come to it.

A Call to Action

To-day we find in American life a political alignment that is largely meaningless. There is no essential difference between the economic and so-

cial creeds of the Republican and Democratic parties. Both stand essentially for the interests of the few as opposed to the many. Both are in the hands of corrupt political machines. Neither has any adequate solution for the burning questions of insecurity, of gross inequality, of industrial autocracy, of imperialism. Neither has any sense of the direction in which our economic system should move. Attempts of reformers to purge the old parties of their reactionary elements have proved futile. A new and powerful political party controlled and directed by the plain people of the country on our farms, in our factories and mines and in professional life is needed to start our country on its way to comfort and security for the masses, to peace and democracy; to bring hope, where there is now despair. The time is ripe for the new alignment.

5. CONCLUSION

It would be possible to make a further analysis of the reasons for the differences in the present status of the labor movement in Great Britain and the United States. Professor Douglas and President Green have attempted to do this to some extent, reaching diametrically opposite conclusions. The reader may draw his own conclusion. Is it because in the United States we have until recently been a pioneer country with vast undeveloped resources? Is it because of our individualistic philosophy? Does the size of America and our mixture of races have any effect on the organization of labor? What is likely to be the trend in the future in the matter of labor organization? Is it possible to chart the sociological forces which have made the Labor Party inevitable in England and, until the present, extremely difficult of promotion in the United States? These and other questions we leave for your consideration

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BOOK VIII
THE PEACE MOVEMENT

QUESTIONS ON THE PEACE MOVEMENT

1. List the causes of war in the order of their importance, giving your reasons under the first five why you think they are of major importance.
2. Outline the major events in the history of the crusade for peace.
3. Which one of the peace plans prior to the League of Nations do you consider of most importance, and why?
4. Do you think that the United States is now maintaining her leadership in the peace movement? Why? Why not?
5. What are the main provisions in the League of Nations Covenant?
6. Do you believe the United States should or should not now join the League of Nations? Why?
7. What is the greatest weakness in the League? What is its greatest strength?
8. Do you believe that the United States should or should not now join the World Court? Why? Why not?
9. What is the greatest weakness in the World Court? What is its greatest value?
10. Explain the practical effect of the Kellogg Pact in an international difficulty. Do you think it will prevent war in most cases? Why? Why not?

QUESTIONS FOR THOUGHT

(To be answered or not, as desired)

1. Do you think that compulsory military drill is consistent with the spirit of the Kellogg Pact? Why? Why not?
2. Are we in danger of another war in the next two decades? Why? Why not?
3. In the light of the economic interpretation of history, would your reply be valid?
4. In the light of the foregoing social movements, how must we deal with the war system?
5. In your intended profession, do you see any way by which you can help forward any of the movements studied in this course? How?
6. Will you help to defeat any of them? How?

I. HISTORY OF THE PEACE MOVEMENT ¹

I. WAR AND EFFORTS TOWARD PEACE

SO FAR in our discussion we have largely centered attention upon group conflicts in the economic realm or movements which have attempted to ameliorate economic conditions. We now turn to a movement, almost as old as history itself, which aims to prevent international conflict.

When we consider what war is, it would be difficult to find a better definition than that of General Sherman, "War is hell." The difficulty with this description is that it means so many different things to different individuals. Not long ago a German summarized one definition in describing his experiences under the title *All Quiet on the Western Front*. It is almost impossible for those who have not experienced it to visualize all that is involved in the actualities of modern war. We shall not attempt to describe them here. We would remind the reader, however, that the last world conflict resulted altogether in thirty-five million dead, not to mention the colossal social suffering, the ruined homes, and the maimed bodies of the wounded. The material cost of the war was three hundred billions of dollars—a sum so vast that we cannot comprehend it.²

War might be characterized as a disease that breaks out between groups at certain periods. In order to prevent the illness, it is consequently necessary to eliminate the germ of conflict. One of the first symptoms of approaching war is the group hypnosis which inflames the public mind and causes it to look with unreasonable suspicion and hatred upon some other group. Probably the first casualty in war is that of the truth. An example of this in the last world conflict follows:

The Growth of a Press Legend ³

Cologne *Zeitung* (Germany):

"When the fall of Antwerp got known the church bells were rung." (Meaning in Germany.)

¹ In the peace movement we have departed from the topical arrangement used elsewhere. This is done because there is no one particular theory on which the movement is based. Instead, the forces for peace embrace pacifists, militarists, radicals, conservatives, indeed those of every shade and color of opinion. The number of concrete plans to usher in a warless world are legion. At present the major proposals seem to be the League of Nations, the World Court, and the Outlawry of War. We are consequently considering each one in turn, but of necessity briefly.

² E. L. Bogart, *Direct and Indirect Costs of the Great World War*, Carnegie Endowment for International Peace.

³ From *The Power of the Press for Peace and War* (pamphlet), published by the National Council for Prevention of War.

The Matin (Paris):

"According to the *Cologne Zeitung*, the clergy of Antwerp were compelled to ring the church bells when the fortress was taken"

The Times (London):

"According to what *The Matin* has heard from Cologne, the Belgian priests who refused to ring the church bells when Antwerp was taken have been driven away from their places."

The Corriere della Sera (Milan, Italy):

"According to what the *Times* has heard from Cologne via Paris, the unfortunate Belgian priests who refused to ring the church bells when Antwerp was taken have been sentenced to hard labor."

The Matin (Paris):

"According to information to the *Corriere della Sera* from Cologne via London, it is confirmed that the barbaric conquerors of Antwerp punished the unfortunate Belgian priests for their heroic refusal to ring the church bells by hanging them as living clappers to the bells with their heads down."

Since the entire public mind is held in a sort of hypnotic state of hatred against the enemy and the true facts are unknown, religion unites with other agencies in supporting the holocaust.

Mark Twain has aptly illustrated the absurdity of this in the following prayer.

*Mark Twain's "War Prayer"*⁴

O Lord our Father, our young patriots, idols of our hearts, go forth to battle—be Thou near them! With them—in spirit—we also go forth from the sweet peace of our beloved firesides to smite the foe.

O Lord our God, help us to tear their soldiers to bloody shreds with our shells; help us to cover their smiling fields with the pale forms of their patriot dead; help us to drown the thunder of the guns with the wounded, writhing in pain; help us to lay waste their humble homes with a hurricane of fire, help us to wring the hearts of their unoffending widows with unavailing grief; help us to turn them out roofless with their little children to wander unfriended through wastes of their desolated land in rags and hunger and thirst, sport of the sun-flame of summer and the icy winds of winter, broken in spirit, worn with travail, imploring Thee for the refuge of the grave and denied it—for our sakes, who adore Thee, Lord, blast their hopes, blight their lives, protract their bitter pilgrimage, make heavy their steps, water their way with their tears, stain the white snow with the blood of their wounded feet! We ask of one who is the Spirit of love and who is the ever faithful refuge and friend of all that are sore beset, and seek His aid with humble and contrite hearts. Grant our prayer, O Lord, and Thine shall be the praise and honor and glory now and ever, Amen.

⁴From *Mark Twain: a Biography*, by Albert Bigelow Paine, Vol. 3, pp. 1233-4. Harper and Brothers, New York, 1912.

When we seek the causes of this terrible disease which afflicts mankind, we find there is no one first cause. David Starr Jordan, the noted educator, describes what he believes to be one of the most important, in the following words: ⁵

"In the recent Pujo investigation of the 'money power' of New York, one phrase came to the front—'the interlocking directorate.' We should hold on to this phrase, before we let it slip back into the dark vaults of the bank, for it has a wealth of significance, and it will have much more.

"In brief, 'the interlocking directorate' is a device whereby one great financial institution keeps itself in touch with many others, ensuring unity of action and preventing cross-purposes in the industry of making money.

"By placing an active member of a great banking house on the inside of every one of many large enterprises or exploiting corporations it is possible to exert an effective influence on all financial matters as well as on questions of peace and war, these resting fundamentally on finance.

"Whether this great force of unanimity in finance is used for good or evil in our country, I do not pretend to say. But it is not an answer to criticisms of American conditions to say that 'the interlocking directorate' is a successful method in Europe, that it is the avowed policy of all the other great nations of the world, that it is everywhere else 'approved by governments and public sentiment as essential to the great enterprises of these days, whether governmental or corporate.'

"It is indeed the method of Europe. It is highly developed in Europe because it fits perfectly into schemes of imperialism. In Europe as in America, it promotes financial stability. It also provides for the steady movement of money from 'the careless hands of the public' to the vaults of the rich. It is especially the agency by which the resources of weak or barbarous countries are drawn to swell the wealth of the great centers of exploiting Christendom. The degradation of 'world politics' to the ape and tiger level is accomplished by such means. Through its agency war is no longer a matter of emotionalism or of patriotism. Where war is permitted it is strictly a matter of business. Where war would interfere with business, it cannot break out.

"The French have a phrase when a crime is committed: '*Cherchez la femme*'—find the woman. Now when war is threatened or a revolution breaks out: '*Cherchez le banquier*'—seek the banker. Find out who makes money from the disturbance, and then trace the chain of interlocking directorates which leads to the center."

There is no one cause for war. Whatever causes friction between groups is a potential cause of conflict. The Conference on the Cause and Cure of War held in Washington, D. C. in 1925 drew up the following list of possible causes:

I. Psychological:

1. Fear

a. Feeling of national insecurity

b. Fear of invasion

⁵ David Starr Jordan, *War and Waste*, pp. 97-104, New York, 1913.

- c. Fear of loss of property
- b. Fear of change
- 2. Suspicion
- 3. Greed
- 4. Lust of power
- 5. Hate
- 6. Revenge
- 7. Jealousy
- 8. Envy

II. Economic:

- 1. Aggressive imperialism
 - a. Territorial
 - b. Economic
- 2. Economic rivalries for
 - a. Markets
 - b. Energy resources
 - c. Essential raw materials
- 3. Government protection of private interests abroad without reference to the general welfare
- 4. Disregard of the rights of backward peoples
- 5. Population pressure
 - a. Inequalities of access to resources
 - b. Customs barriers
 - c. Migration barriers
- 6. Profits in war

III. Political:

- 1. Principle of balance of power
- 2. Secret treaties
- 3. Unjust treaties
- 4. Violation of treaties
- 5. Disregard of rights of minorities
- 6. Organization of the state for war
- 7. Ineffective or obstructive political machinery

IV. Social and contributory:

- 1. Exaggerated nationalism
- 2. Competitive armaments
- 3. Religious and racial antagonism
- 4. General apathy, indifference and ignorance
- 5. War psychology created through various agencies, e.g.
 - a. The press
 - b. Motion pictures
 - c. Text-books
 - d. Home influences
- 6. Social inequalities
- 7. Social sanctions of war
- 8. Lack of spiritual ideals

It is natural in view of the terrible effect of war that there should have been continued movements to abolish it. Ever since the dawn of history we find men fighting. The tales of antiquity are replete with the heroic achievements of the battlefield. Even when we get back beyond written history we find the remains of stone implements which have doubtless been used in warfare. Nevertheless, the efforts to prevent war have been almost as ancient and as constant as war itself, and in a more closely populated and intelligent world these efforts have increased. At the present time as we have noted the world is smaller in point of time than the United States of America at the foundation of the republic. International problems closely resemble to-day what interstate problems once were. We have instant telegraphic and radio communication throughout the world. A disaster in South Africa is known almost immediately in New York. Aeroplanes are capable of making regular trips around the globe.

It is becoming more and more doubtful if war can be localized. A major conflict that breaks out in any one spot is likely to involve us all. Hence the growing endeavors to prevent war.

In the past two thousand years there have been many periods of change. One came with the fall of the Roman Empire, another with the Magna Charta, and a third with the Renaissance and Reformation. Others embraced the establishment of the republic of the United States and the crushing of the monarchy in France. A further effort perhaps started at the close of the World War. There has been a constant trend towards giving more power to the common people. It seems to be true that there has been a slow change in ideas and ideals. It is possible that mankind is now approaching the time when war will be relegated to the same niche in the museum of history that the duel has already been accorded. Certainly as we look back it seems to be clear that the efforts against war have been slowly increasing in effectiveness. In the Middle Ages the apostles of peace cherished a dream of a warless world. The great poet, Dante, who lived in the Thirteenth Century, in his book, *De Monarchia*, proposed a universal federation of peace and prosperity under a single monarch.

Pierre de Bois of France in 1305 proposed a plan for securing a peace between all the Catholic princes of Europe. His scheme was a council with the power to appoint arbitrators. The final court of appeals was the Pope. In 1462 the Bohemian king proposed an alliance between European nations primarily directed against the Turks but also calculated for the maintenance of peace between the Christian powers.

Some of the Utopians discussed earlier in the course pictured a world in which conflict had been done away with.

In the Seventeenth Century, Emeric Cruce (1673) published *The New Cineas or Discourse of the Occasions and Means to Establish a General Peace, and the Liberty of Commerce Throughout the World*. The title of this book refers to Plutarch's *Lives of Illustrious Men* in which the old philosopher Cineas is discussing war with the famous general Pyrrhus. The philosopher asks the general what he will do if he conquers the Romans. The general replies that it is self-evident he and his army will be the conquerors of all Italy and will then press on to Sicily. The philosopher asks if the conquest of Sicily will put an end to all war. "On the contrary," said the general, "victory there will enable us to reach Carthage and after that we shall be able to conquer Greece and the world." The philosopher asks what the general and his army would then do since there are no more worlds to conquer. "Oh," said the general smiling, "we will live at our ease, my dear friend, and drink all day and divert ourselves with pleasant conversation." The philosopher asks this disquieting question, "If that is your goal, why not enjoy it now without the carnage of blood and the possibility of defeat since you have prosperity and plenty and can now live in this ideal way."

Cruce in his book advocates a union of the nations and the settlement of their disputes in a general conference of arbitrators with the use of force if necessary to secure obedience. Two years later Grotius proposed not a union of states but periodic conferences of independent nations in which their disputes when not otherwise solved were to be settled by diplomatic negotiations.

Perhaps the most famous proposal of the Seventeenth Century has been known as the "Grand Design," devised by Sully but attributed to Henry IV. It contemplated the establishment of a Christian republic composed of fifteen states with a general senate of about seventy persons from the various European states. The senate was to deliberate on all conflict of interests and to assist in the civic, political, and religious life of the world. Europe was to be equally divided among all the powers in such a way that none of them would have any envy or fear from the power of the others. The result would be universal peace. Part of the program, however, necessitated the division of the Empire of Austria, of Germany, Italy and the Low Countries. In other words this plan really proposed a military venture against Austria in order later to secure peace. This seems rather far-fetched to the modern mind but after all it is not so different from the slogan which was used in the last world conflict that we were fighting the war to end all war.

In 1693 William Penn wrote an essay, *Towards the Present and Future*

Peace of Europe. He justifies his proposal by referring to the "Grand Design" of Henry IV. Under Penn's plan the kings of Europe were to be represented in a congress according to their revenues rather than on a plane of equality. The congress was to meet yearly or every second or third year. He suggested that if any of the kings should refuse to submit their claims to the congress all the other kings should unite against the one. In the Eighteenth Century Abbe de St. Pierre published *A Plan for Perpetual Peace* (1712). The Abbe thought that it might be possible to perpetuate the *status quo* under the Treaty of Utrecht. This contemplated a union of all Christian sovereigns with a standing congress in which the king should be represented by deputies. Once fourteen nations had joined the union any king who refused to enter was to be immediately considered an enemy and war was to be declared against him and his territories taken away. All complaints and difficulties of the various nations were to be decided by a three-fourths vote of the congress. If any king refused to abide by the decision, war was to be declared against him and he would finally be forced to pay the costs of the conflict. The various provisions of the rule by the central congress could only be changed by unanimous vote. Following this plan Rousseau amplified and justified St. Pierre's views with the following argument. He proposed first that since with the exception of Turkey there is a close social connection between all the peoples of Europe, and second, since the imperfections of this society make the conditions worse than would be the deprivation of all society among them, and third, since the primary bonds which make the society harmful make it at the same time easily capable of improvement, it should be possible to do away with war permanently and usher in abiding peace. He believed that war and monarchy were natural comrades and peace must be brought about by the people. He simplified the proposal of St. Pierre and proposed that, instead of immediately declaring war on a king who violated the decisions of the congress, they should place him under the ban of Europe and that war would be declared only in the event of his taking up arms. He also proposed that the decisions of the congress should be by a majority vote, but that the final decision should require a majority of three-fourths acting under instructions from their governments. It is probable that Rousseau's plan powerfully affected the thinking of the various nations at that time and the arguments which he used in support of it were certainly very skilfully drawn and were probably the most effective statement up to that time.

A few sentences from his comment on St. Pierre's plan are valuable in showing the fearless way in which he attempted to draw up a plan for

peace. "Nor must we believe with the Abbe de Saint-Pierre that even with good-will, which neither princes nor their ministers will ever have, it would be easy to find a favorable moment for the execution of this system, as it would be necessary in such a case that the sum of private interests should not outweigh the common interest, and that each should believe he saw in the well-being of all the greatest good to be hoped for himself. Now, this demands a union of wisdom in so many heads and a union of relations in so many interests that we can hardly hope for a fortuitous union of all the necessary circumstances. However, if this agreement does not happen there is only force to take its place, in which event it is no longer a question of persuading but of compelling, and instead of writing books we must raise troops.

"Thus, although the project might be very wise, the means of executing it betrayed the simplicity of the author. He imagined in his goodness that it was only necessary to assemble a congress and propose therein his articles, that they would be signed and that all would be ended. Let us admit that in all the projects of this honest man he saw well enough the effect of things when they were established, but that his judgment was that of a child as to the means of putting them into effect.

"I do not need to add more to prove that the project of the Christian republic is not chimerical than to name its first author, for assuredly Henry IV was neither a fool nor Sully a visionary."⁶

About 1788 Bentham wrote a Plan for Universal and Perpetual Peace. He proposed a reduction of armaments and an emancipation of the distant independencies of each state. His principal proposition, however, was the establishment of a judicial court for settling the differences between the nations, but the court was to have no armed power to enforce its decisions. He says, "Establish a common tribunal, a necessity for war no longer follows from a difference of opinion. Just or unjust, the decision of the arbitrators will save the credit, the honor of the contending party." The tribunal he proposed was virtually a congress where each government sent two deputies. Its power resided in public opinion because if a state refused to abide by its decision it would be put under a ban by all the other states and the pressure of public opinion throughout the world would enforce compliance. He felt that a free press could be trusted to create a public opinion in favor of the judgments of the court and that force would be unnecessary. His plan is very significant because it is one of the earliest to renounce armed authority in enforcing decisions. The prerequisites to the plan, renunciation of colonies and disarmament, are still, in the twentieth

⁶ Rousseau's *Jugement sur la Paix perpetuelle*, loc. cit., Vol. 6, pp. 452-6.

century unacceptable to the majority of the nations of the world. The philosopher Kant drew up six preliminary articles which he thought would insure peace. They are as follows:

1. No treaty of peace shall be regarded as valid, if made with the secret reservation of material for a future war.
2. No state having an independent existence—whether it be great or small—shall be acquired by another through inheritance, exchange, purchase or donation.
3. Standing armies (*niles perpetuus*) shall be abolished in course of time.
4. No national debts shall be contracted in connection with the external affairs of the state.
5. No state shall violently interfere with the constitution and administration of another.
6. No state at war with another shall countenance such modes of hostility as would make mutual confidence impossible in a subsequent state of peace: Such are the employment of assassins (*percussores*) or of poisoners (*venefici*), breaches of capitulation, the instigating and making use of treachery (*perduellio*) in the hostile state.

Kant believed that a representative government would prevent war because the genuine elected representatives of the people would refuse war and favor peace. Kant specifically mentions a League of Nations with differences settled by law. His proposal is so far in advance of his time that we quote again directly from his words.

"Such a general association of states, having for its object the preservation of peace, might be termed the permanent congress of nations. Such was the diplomatic conference formed at The Hague during the first part of the eighteenth century, with a similar view, consisting of the ministers of the greater part of the European courts and even of the smallest republics. In this manner all Europe was constituted into one federal state, of which the several members submitted their differences to the decision of this conference as their sovereign arbiter. . . .

"What we mean to propose is a general congress of nations of which both the meeting and the duration are to depend entirely on the sovereign wills of the several members of the league, and not an indissoluble union like that which exists between the several States of North America founded on a municipal constitution. Such a congress and such a league are the only means of realizing the idea of a true public law, according to which the differences between nations would be determined by civil proceedings as those between individuals are determined by civil judicature, instead of resorting to war, a means of redress worthy only of barbarians."¹

In the Treaty of Vienna of June, 1815 arbitration was utilized in the reorganization of Germany under the name of the Germanic Confederation. Article 63 reads as follows:

¹ *Perpetual Peace*, Immanuel Kant, 1795.

Art. 63. The states of the confederation undertake to defend not only the whole of Germany, but also each individual state of the union, in case it should be attacked, and mutually guarantee all of their possessions which are comprised in that union. When war is declared by the confederation, no member may enter upon private negotiation with the enemy, nor make peace nor an armistice without the consent of the others. The members of the confederation, while reserving the right to form alliances, nevertheless bind themselves not to contract any engagement which would be directed against the safety of the confederation or of the individual states which compose it. The confederated states, moreover, undertake not to make war among themselves under any pretext and not to pursue their differences by force of arms, but to submit them to the Diet. It will try the path of mediation through the medium of a commission; if this does not succeed and a juridical award should become necessary, it will be provided by an Austregal judgment (*Austregal-Instanz*), well organized, to which the litigant parties shall submit themselves without appeal.

While the Germanic confederation was being set up the South American states were becoming independent. Many of them enacted treaties which declared for arbitration of all disputes of whatsoever character. In 1913 out of thirty-three arbitration treaties in force providing for absolute and unconditional arbitration, twenty-three came from Latin America. Out of thirteen additional treaties which provided for arbitration in everything except matters affecting constitutional provisions of the state all were Latin American. Shortly after the Congress of Vienna, the peace movement in England had begun. By 1840 there was a small but effective group urging universal peace. This group attempted, but without success, to prevent the Crimean War. When the war ended, a deputation of eighteen members of Parliament went to the Prime Minister, Lord Palmerston, from the Peace Congress Committee urging the government to establish some system of international arbitration which would bring the interests of nations within rules of justice and right. The Prime Minister replied in rather cool terms that "he could not go with them to the full extent." He urged them to influence general public opinion as to the advantages of peace. In spite of this setback the Committee sent a deputation to the Peace Conference at Paris and there Lord Clarendon, head of the British delegation brought the matter to the attention of the congress. The effect of Lord Clarendon's advocacy of arbitration resulted in the following resolution.

The plenipotentiaries do not hesitate to express, in the name of their Governments, the wish that states between which any serious misunderstandings may arise, should, before appealing to arms, have recourse, so far as circumstances might allow, to the good offices of a friendly power.

The plenipotentiaries hope that the Governments not represented at the congress will unite in the sentiment which inspired the wish recorded in the present protocol.

It can thus be seen from this brief sketch of the development of the peace idea that it was an ideal which was constantly held before the "civilized" nations. It is true that many of the projects which we have outlined did not make a great or lasting effect on public opinion. Many of them were woefully at fault in disregarding the economic causes for conflict and in providing for a forcible peace movement based on armies and war. However, they undoubtedly did affect the leaders of public thought to some extent and so are important. In another contribution we will trace the part which America has played in the peace movement which culminated in the League of Nations, the World Court and the Outlawry of War.

2. GANDHI AND NON-VIOLENCE

No treatment of the movement for peace would be complete without some mention of Gandhi, the most picturesque leader of the non-violence movement in the world to-day.⁸ He was born in the year 1869 at Porbunder in the northwestern part of India into a wealthy and cultured family. Both parents were devoutly religious, subscribing to a faith which taught sincere devotion to God; fellowship with the universe; service to all and violence to none. Gandhi was married without any choice in the matter at twelve. At nineteen he was sent to London to finish his work in law. Upon his departure his mother made him take three religious vows which he faithfully observed during all his stay in England: abstention from wine, meat, and sexual intercourse. He returned to India in 1891 and began the practice of law. He was much influenced by the "uncrowned king of Bombay," Dadabhai, who urged heroic passivity, i.e., fight evil not by evil but by love. He was also deeply moved by the ideas of Tolstoy.

In 1893 Gandhi was called to Africa on an important law case and while there learned of the desperate condition of some 150,000 Indians who lived chiefly in Natal. The South African government proposed to enact drastic legislation discriminating against them. Gandhi decided to remain in South Africa and champion their cause. It was here that he first actively used the method of passive resistance. Romain Rolland describes what happened as "an epic struggle between spirit on one side and govern-

⁸ Space limitations forbid an exhaustive treatment of Gandhi's philosophy of life, but this brief section is given because of the unparalleled influence of his personality and ideas on the peace movement. Students who are interested to read further should consult *Mahatma Gandhi's Ideas*, by C. F. Andrews (1930). This has a good bibliography.

mental power and brute force on the other." He organized a self-sustaining colony for the Indians. His closest followers took vows of poverty and non-violence, and throughout two decades of struggle did no injury to their oppressors. Finally, in 1914 his cause had won: the hostile legislation was withdrawn and Natal was opened to Indians on fair terms. Thus within a period of about twenty years he had won the respect of the British in South Africa, welded the Indians into a united group willing to make sacrifices for their cause and had given an impressive example of the powerful effect of non-violent resistance. He himself describes his theory in the following words:⁹

"The term 'Passive Resistance' does not fit the activity of the Indian Community during the past eight years. Its equivalent in the vernacular, rendered into English, means Truth-Force. I think Tolstoy called it also Soul-Force, or Love-Force, and so it is. Carried out to its utmost limit this force is independent of pecuniary or other material assistance. Violence is the negation of this great spiritual force, which can only be cultivated or wielded by those who will entirely eschew violence. It is a force that may be used by individuals as well as by communities. It may be used as well in political as in domestic affairs. Its universal applicability is a demonstration of its permanence and invincibility. It can be used alike by men, women, and children.

"It is impossible for those who consider themselves to be weak to apply this force. Only those who realize that there is something in man which is superior to the brute nature in him, and that the latter always yields to it, can effectively be passive resisters. This force is to violence what light is to darkness.

"In politics its use is based upon the immutable maxim that government of the people is possible only so long as they consent either consciously or unconsciously to be governed. We did not want to be governed by the Asiatic Act of 1907 of the Transvaal, and it had to yield before this mighty force. Two courses were open to us: (i) to use violence when we were called upon to submit to the Act; or (ii) to suffer the penalties prescribed under the Act, and thus to draw out and exhibit the force of the soul within us, for a period long enough to appeal to the sympathetic chord in the governors or the law-makers. We have taken long to achieve what we set about striving for. That was because our Passive Resistance was not of the most complete type. All passive resisters do not understand the full value of the force, nor have we men who always from soul-conviction refrain from violence.

"The use of this force requires the adoption of poverty, in the sense that we must be indifferent whether we have the wherewithal to feed or clothe ourselves. During the past struggle all passive resisters were not prepared to go that length. Some again were only passive resisters so-called. They came without any conviction, often with mixed motives, less often with impure motives. Some even, while engaged in the struggle, would have resorted to violence except for most vigilant supervision. Thus it was that the struggle

⁹ From the Golden Number of *Indian Opinion*. Edited by H. S. L. Polak, Natal, South Africa.

became prolonged; for the exercise of the purest Soul-Force in its perfect form brings about instantaneous relief. For this, prolonged training of the individual soul is an absolute necessity, so that a perfect passive resister has to be almost, if not entirely, a perfect man.

"We cannot all suddenly become such men, but the greater the spirit of Passive Resistance in us the better men we shall become. Its use, therefore, is indisputable, and it is a force which, if it became universal, would revolutionize social ideals, do away with despotisms, and destroy the ever-growing militarism under which the nations of the West are groaning and are being almost crushed to death, and which promises to overwhelm even the nations of the East.

"If the past struggle has produced even a few Indians who would dedicate themselves to the task of becoming passive resisters as nearly perfect as possible, they would not only have served themselves in the truest sense of the term, but they would also have served humanity at large.

"Thus viewed, Passive Resistance is the noblest and the best education. It should come, not after the ordinary literary education of children; it should precede it. It will not be denied that a child, before it begins to write its alphabet and to gain worldly knowledge, should know what the soul is, what truth is, what love is, what powers are latent in the soul. It should be an essential of real education that a child should learn that, in the struggle of life, it can easily conquer hate by love, untruth by truth, violence by self-suffering."

In 1914 Gandhi returned to India. During the war he supported the government believing that after the conflict was over India would be granted a new freedom as a reward for her service. In this he was bitterly disappointed and immediately assumed leadership in a movement to free his fellow countrymen. The striking feature of his work, however, is that here again he followed the technique of passive resistance and consistently urged all his followers to use *ahimsa* or non-violence. During his campaign against British rule he has at various times urged such radical tactics of non-coöperation as:

1. The surrender of all titles of honor and honorary office;
2. Non-participation in government loans;
3. The settlement of all disputes by private means;
4. The boycott of government schools;
5. Non-participation in any government party or other official function;
6. Refusal to accept any civil or military post;
7. Refusal to purchase or use articles made in foreign countries and the practice of *khaddar* or home spinning.

Gandhi has not hesitated to urge his followers to violate the law. He considers that India should have *Swaraj* or self-government and that all

British laws are consequently illegal. It was thus that in 1930 he publicly violated the law that salt making was a government monopoly. Gandhi has several times been arrested as he was following his "salt campaign" in May, 1930.

The exact effect which Gandhi's personality and spirit has had on India, indeed on the peace movement of the world, it is difficult to determine accurately. Two unpublished estimates of Gandhi by American leaders will help to make his personality and influence real to the American student. The first is by Sherwood Eddy, author and International Secretary of the Young Men's Christian Association, who saw Gandhi in December 1929; the other is by a well-known American sociologist, Professor Herbert A. Miller, of Ohio State University, who interviewed Gandhi in March, 1930. Both strikingly corroborate each other.

1. "I shall always remember Gandhi at his spinning wheel with the warm light of the Indian sun falling upon him as he sat upon the floor of his simple room and talked with us quietly of the approaching crisis in India's history. His bodily presence, like that of the Apostle Paul or of Socrates, is at first sight weak and unprepossessing; a small, emaciated figure, weighing less than a hundred pounds, bearing the marks of days of fasting, of five imprisonments, and of long hours of work, beginning daily with his hour of prayer at four every morning. Three times he has been beaten by mobs and once left prone in the gutter as dead. He has a round, close-cropped head, large ears, a rather long nose, a quiet, pensive face, save when it lights in a smile or ripples with laughter as it so often does. But this only reveals his few remaining front teeth. It is characteristic of the man that he makes use of artificial dentistry at meal time for practical purposes, but will have no 'false' teeth for the sake of appearance between times.

"After three days spent in his Ashram or social settlement, he impresses us as the most childlike, the most transparent, the most lovable of men. His whole character is centered in his unique passion for truth and reality. His autobiography reveals the most inflexibly honest man of our times. His principle of *satyagraha*, meaning truth-force or soul-force as opposed to brute force, leads logically to *ahimsa*, meaning non-killing, non-injury and non-violence to any living being. This is embodied in his character as love, sympathy and identification with all human suffering. He believes that moral suasion or love, and love alone, is sufficient to meet every situation in life. This in turn leads to non-possession or poverty, whereby one shall not keep for himself anything which he does not really need. This results in the progressive simplification of life. His utterly selfless humility and shyness are strangely coupled with quiet boldness. It is difficult to realize that this frail man was once silent and timid before all strangers, a dumb failure in his first law case, a confessed 'coward' afraid to sleep in the dark, yet now is perhaps the most fearless man in the world. His description of the former Indian leader Gokhale might be applied with even more truth to himself: 'Pure as crystal, gentle as a lamb, brave as a

lion and chivalrous to a fault. He was and remains for me the most perfect man on the political field.' He is a saint strayed into politics who is working in the spiritual, social and political spheres as one undivided whole of life."¹⁰

2. "The visit with Gandhi was perhaps at one of the great moments in history and certainly the most romantic one of all time I say this without qualification. The contrast between the extravagant Viceroy's palace and the humble *ashram* of Gandhi is antipodal and the men they house are admittedly the only two representatives of power in India. The events of the last two days have shown that the hold of Gandhi on the imagination of countless millions of people is without parallel.

"For ten years Gandhi has been compared to Jesus. In all this time he has not made a slip to break the comparison. He has, however, subjected himself to criticism for his political policies. This is inevitable, because political policies are temporal and open to differences of opinion; but for his eternal qualities he has lived in the presence of God. Buddha and many other Indians, and, perhaps, Tolstoy, have been as consistent, but those religious leaders were primarily interested only in the souls of men. Tolstoy admitted the difficulties of seeing his way through practical problems though personally true to his ideals. Gandhi is the first saint actually to identify a spiritual technique with a program for the solution of social problems. This spiritual side you cannot escape when in his environment. Of course some of his followers are fanatics, but Gandhi is not a fanatic; he is a saint. To him only one thing is bad and that is sin, and he tries to escape it by constant communion with God. There is no cant or ritualism in the prayers and fastings that he performs. The English papers are treating the present movement with ridicule, but they never fail to say *Mr. Gandhi*. The Indians say *Gandhiji* or *Mahatmaji*. The 'ji' suggests special honor. 'Mahatma' means great soul, and Gandhi always repudiated it, but it is fixed upon him.

"Gandhi was in the best of health and spirits, running and skipping with the children on his daily walk, and on all occasions full of laughter and banter. He has girded his loins for the battle of his life to arouse and free India, with absolute confidence that the final outcome will be victory. When I asked him how large was his following he said that he did not know but it was necessary to start in order to find out. He likened his efforts to arouse the people to a surgeon applying a blister to make a cure, always with the possibility that he may kill instead. Then he laughed and said 'But I am a good surgeon for I have been practicing for twenty-four years.' In reply to the claim that the English have been of great benefit to India he said there was no doubt they had done many good things, hospitals, for example, though a good thing, reached only a microscopic percentage of those needing them, and do not make up for the killing of self-reliance and the impoverishment of the masses. Much of the good they have done was a by-product and unintentional and deserves no credit, as for instance the arousing of the people to resistance. To the government's claim that its continuance is necessary for the keeping of peace between Hindu and Moslem, Gandhi said that the two religions had gotten on harmoniously before the English came. When the Mohammedans

¹⁰ From an unpublished letter

had shown a tendency to draw away, naturally the English, seizing this basis of difference, had stimulated it on the principle of 'divide and rule' 'Hindus must be developed to such a point of self control that the Moslems can have no fear,' he said."²¹

3. THE EFFORT OF THE UNITED STATES TO BRING ABOUT WORLD PEACE ¹²

It is not mere chance that the three plans to substitute law for war which have recently held the attention of the world—the League of Nations, the Outlawry of War, and the World Court—are all of American origin. The effort of the United States to rid the world of war began with the founders of the Republic and has been persistently carried on by her greatest statesmen until the present day, in spite of enormous odds against the effort. It is, in all probability, because the effort has not yet succeeded that this great national contribution remains an unwritten chapter in our histories. When the plan which will substitute law for war is finally worked out, Americans will point with enduring pride to the courageous struggle by which peace has been advanced step by step under the leadership of the great men of this nation.

Colonial Days—William Penn's Holy Experiment, and Parliament of Europe

The first example in the history of the world of a government unsupported by armies was to be found among the American Colonies in the seventeenth century. In 1682 William Penn brought his group of Quakers to America with the idea of making an experiment in peaceful government. Before he left England he said that one motive which urged him on was this: "There may be room there for an Holy Experiment in government which shall be as an example to the nations." He set up his colony in Pennsylvania and the century of peace which it maintained in an unsettled country, among hitherto hostile, warring savages, proved government without force practical.

Not content with the example of an isolated experiment, Penn drew up a plan for a "parliament of Europe," of which the basic idea is not unlike plans which we are considering to-day. He proposed that the sovereign princes of Europe should appoint representatives to meet yearly to settle their differences. If any sovereign prince refused to submit a dispute to the Diet or failed to execute its judgments, all the other states were to unite to compel submission of the difference, performance of the settlement, and payment of damages to the party wronged and costs to the states which were compelled to force submission.

²¹ From an unpublished letter.

¹² By Florence B. Boeckel. Washington, D. C., 1927.

*Under the Federation of States Congress Requested to Work
for World Peace*

This determination that the new Republic should lead the world to peace did not exist only in the mind of William Penn, the Quaker. The Revolution was no more than over—the Constitution, indeed, had not yet been adopted—when Samuel Adams drew up for the General Court of Massachusetts the following letter of instructions for the Massachusetts delegates in Congress:

“You are hereby instructed and urged to move the United States in Congress assembled to take into their deep and most serious consideration whether any measures can by them be used, through their influence with such of the nations in Europe with whom they are united by treaties of amity or commerce, that national differences may be settled and determined without the necessity of war, in which the world has too long been deluged, to the destruction of human happiness and the disgrace of human reason and government.”

Though no definite action could be taken on this recommendation, the Massachusetts delegates were instructed to have the letter entered in the Journals of Congress, to remain for the inspection of delegates from Massachusetts in future time.

The earnestness with which George Washington shared this desire of the people of his country to promote world peace is evidenced in his public utterances before he was President, in his final admonition to his countrymen when he gave up office, and in his official acts during the time he served as President. In 1785 he wrote to David Humphreys, the secretary of the first United States commission sent abroad to negotiate treaties of commerce:

“My first wish is to see this plague to mankind banished from the earth and the sons and daughters of this world employed in more pleasing and innocent amusements than in preparing implements and exercising them for the destruction of mankind.”

To Lafayette, in 1788, he wrote: “Would to God the harmony of nations were an object that lay nearest to the hearts of sovereigns.”

*George Washington and John Jay Responsible for the First
Modern Treaty of Arbitration*

During his first term as President, Washington was able to carry these principles into action. Following the French Revolution, conflict broke out between England and France and a powerful group in this country demanded that America take part in it. Washington resisted the demand and sent his Chief Justice, John Jay, as a special representative to England. Jay worked out and embodied in the famous Treaty of 1794, which

he arranged with England, the first modern experiment in international arbitration. In large part because of this arbitration clause, Jay was burned in effigy by his political opponents! Yet in the century and a half which has followed, more than six hundred international disputes have been settled in accordance with the principle which he laid down.

● *Washington's Secretary of State, Thomas Jefferson,
Defines Rights of Neutrals*

Thomas Jefferson, as Secretary of State under Washington, likewise made a lasting contribution to international law. When American commerce was at the mercy of French and British alike he drew up principles defining the rights of neutrals on a basis so broad and progressive that they are recognized to-day.

Succeeding George Washington as President, John Adams followed the policy of peace, even against the advice of men in his own party. The conflict between England and France continued, and the people who under Washington had cried for war with England now cried for war with France. Adams, however, on his own responsibility, sent commissioners to France and negotiated a just and peaceful settlement. Twenty years later he said that he would rather have inscribed on his tombstone, "Here lies John Adams, who took upon himself the responsibility of the peace with France in 1800," than to have recorded there any other event in his public career.

Benjamin Franklin's Notable Treaty of Amity and Commerce

Through all these early days the influence of Benjamin Franklin was very great and it was an influence constantly exerted in behalf of peace. "There never was," he said, "a good war or a bad peace." He preached peace not alone to his own countrymen but to every nation with which he came in touch. Upon one statesman after another he pressed his conviction: "All wars are follies, very expensive and very mischievous ones." His reiteration of the fact that it is cheaper for one nation to pay another nation for the territory or the privileges which it desires than to go to war for them may well have influenced the later policies of this country in its western development. Two specific things Franklin tried to embody in international law—the abolition of privateering, which he declared an encouragement to war, and the protection of the interests of merchants and of "all fishermen, all cultivators of the earth, all artisans or manufacturers, unarmed and inhabiting unfortified places, who labor for the common benefit of mankind, and of unarmed vessels employed in commerce." These provisions he embodied in the last treaty which he negotiated in Europe, a treaty of amity and commerce between the United

States and Frederick the Great. Washington himself pointed out the importance of the principle laid down in this treaty of amity:

"It is perfectly original," he said, "in many of the articles, and should its principles be considered hereafter as the basis of connection between nations it will operate more fully to produce a general pacification than any measure hitherto attempted amongst mankind."

This treaty was but one of the results of the policy pursued by the statesmen of this country from the beginning, designed to promote a general system of free international organization and cooperation, and persisting into the present-day demand for the Open Door in the East.

It was Franklin's belief that the most practical way to approach world peace was for a group of nations to arrange an alliance against all aggressors and agree to refer all disputes to some third party. If such an arrangement were made among a few nations he believed they would be joined by others and that the manifest advantage of arbitration would lead to its universal adoption.

When Thomas Jefferson became President, he continued the peace policies of Washington and Adams in spite of the fury of the Napoleonic Wars, into which we might so easily have been drawn. Jefferson stated his theory in a letter to Thomas Pinckney in 1797: "War is not the best engine for us to resort to. Nature has given us one in our commerce, which, if properly managed, will be a better instrument for obliging the nations of Europe to treat us with justice." Again, he wrote: "I love peace and I am anxious that we should give the world still another useful lesson by showing them other modes of punishing injuries than by war, which is as much a punishment to the punisher as to the sufferer." He did not believe war the most certain means of enforcing principles:

"Those peaceful coercions which are in the power of every nation, if undertaken in concert and in time of peace, are more likely to produce the desired effect. . . . However we may be reproached for pursuing our Quaker system, time will affix the stamp of wisdom upon it, and the happiness and prosperity of our citizens will attest its merit; and this, I believe, is the only legitimate object of government and the first duty of governors, and not the slaughter of men and devastation of the countries placed under our care in pursuit of a fantastic honor unallied to virtue or happiness."

Jefferson Wishes the United States to Set Example

Jefferson's policy is best described by Henry Adams, descendant of John Adams, in his history of Jefferson's administration:

"That the United States should become a nation like France, England or Russia, or should conquer the world like Rome, was no part of his scheme. He wished to begin a new era. Hoping for a time when the world's

ruling interests should cease to be local and should become universal; when questions of boundary and nationality should become insignificant; when armies and navies should be reduced to the work of police—he set himself to the task of governing with this golden age in view. Few men have dared to legislate as though eternal peace were at hand, in a world torn by wars and convulsions and drowned in blood, but this was what Jefferson aspired to do. Even in such dangers, he believed that Americans might safely set an example which the Christian world should be led by interest to respect and at length to imitate. As he conceived a true American policy, war was a blunder, an unnecessary risk; and even in case of robbery and aggression, the United States, he believed, had only to stand on the defensive in order to obtain justice in the end. He would not consent to build up a new nationality merely to create more navies and armies, to perpetuate the crimes and follies of Europe, the central government at Washington should not be permitted¹ to indulge in the miserable ambitions that had made the Old World a hell and frustrated the hopes of humanity.”

When the first peace society was organized in Massachusetts in 1815, Jefferson became an honorary member.

President Madison stood as firmly as his predecessors for the principle of peace, but under his administration that group in the nation known as “War Hawks” gained the ascendancy and, in 1812, persuaded the government to declare war on England. Of this War of 1812 John W. Foster, Secretary of State under President Harrison, said:

“The War of 1812, our first foreign conflict, was far from being inevitable. While it was justifiable, the better sentiment of the country was opposed to it. President Madison did all in his power to prevent it but was overruled by a few fiery spirits in Congress. The declaration of war was passed by Congress after a heated debate with a large minority vote against it.”

The Treaty of Ghent Promotes Arbitration, Establishes First Unarmed International Boundary and Principle of Limitation of Armaments

In the Treaty of Ghent, which ended this war, Madison definitely promoted the use of arbitration as a method of settling international disputes. By the terms of the treaty three commissions were appointed to determine various boundary questions between the two countries.

Most notable of all, the Treaty of Ghent, and the negotiations following it, completed in 1817, provided for a great unarmed international frontier which has established the validity of the principle of the limitation of armaments. When the War of 1812 ended, the United States and Canada had each some forty-six forts on the shores of the Great Lakes,

and many shipyards employing hundreds of men. Plans were immediately under way for building additional warships. A special order from the British Admiralty encouraging more rapid local construction of warships for the Great Lakes caused American officers to urge upon Congress the necessity for immediately increasing military and naval appropriations and building larger and more destructive warships for our own border defense. At this point, Richard Rush, of Quaker descent, who shortly afterward became Attorney General for the United States, consulted with the British Ambassador, Charles Bagot, and suggested that in the mutual interest of both nations steps be taken to limit the number of men and ships along the boundary, instead of to increase them. Bagot heartily agreed and Rush drafted an arrangement which was signed shortly after the Treaty of Ghent. Its immediate effect was to stop work on nearly one hundred fortifications, disband local armies and navies, and cause the immediate disarmament of more than one hundred warships. As a result, for over one hundred years peace has been maintained along this three-thousand-mile border and a little sheet-iron steamer, the "Wolverine," has been sufficient to protect the interests of the United States. The fact that this unarmed boundary between the United States and Canada is now accepted entirely as a matter of course has unfortunately decreased the force of its example.

Having arranged to live in peace with our northern neighbor, under the next administration a step was taken to protect this hemisphere against wars of conquest. In 1823, President Monroe, supported by England, whose merchants desired to continue their relations with South American republics, issued his famous doctrine, which declared that the American continents were closed to future colonization and that the democratic governments established on this side of the world should be unmolested. Except in our relations with Mexico and Central America, the United States has lived up to the principle and policy of peace in this hemisphere.

Peace in the Western Hemisphere

Almost immediately after the promulgation of the Monroe Doctrine, a Pan-American Conference was called at the instance of Colombia. John Quincy Adams, then President of the United States, accepted the invitation and sent delegates. In the instructions of Henry Clay, then Secretary of State, to the delegates, the development of arbitration among the American nations is one of the chief points emphasized.

Fifty years later, the United States took the initiative in resuming conferences between the countries of North and South America, and Secretary of State James G. Blaine, in 1881, called a Pan-American Congress to meet in Washington "for the purpose of preventing war between

the nations of America." This Congress was delayed, but finally met in 1889 and has been followed by others in 1901, 1906, 1910, and 1923, with Central American Peace Conferences in 1907 and 1922.

The results of these American conferences have been notable. The Pan-American Union resulted from the first. At later ones, treaties of compulsory arbitration were agreed upon by nine Latin-American countries, and Latin America was brought definitely into the world movement for peace by association with the nations of Europe at the Second Hague Conference. At the last Pan-American Conference, in 1923, the question of the limitation of armaments was introduced and, although not settled, opened a broad field for further conference and negotiation.

The Central American Peace Conference, called on the initiative of Mexico and the United States, in 1907, put into effect the plan of Elihu Root, then Secretary of State, for an International Court, a concrete forerunner of the present World Court in the foundation of which Mr. Root also played the leading part. The five Central American nations bound themselves "to submit all controversies which might arise among them, of whatsoever nature and no matter what their origin may be" in which their departments of foreign affairs failed to reach an understanding. This was the first permanent judicial body to sit in judgment of nations. It successfully settled a number of international differences, and established an important precedent. The convention under which it was established expired in 1917 and has not been renewed. The responsibility for the abolition of the court rests upon the United States.

Legislatures and Congress Favor Arbitration

That the Government of the United States, in its efforts to substitute law and arbitration for war, had the support of the people of the country is attested in many ways. In 1832, the Senate of Massachusetts adopted a resolution expressing the opinion that "some mode should be established for the amicable and final adjustment of international disputes, instead of resort to war."

Five years later, both the Senate and the House of Massachusetts passed a resolution, "that a Congress of nations for the purpose of forming a code of international law and establishing a high court of arbitration . . . is a scheme worthy the careful attention of all enlightened governments." In 1844 the legislature of Vermont commended the popular suggestion that a congress of nations be called by the United States for the purpose of establishing an international tribunal.

The Senate Committee on Foreign Relations reported to that body in 1851 a resolution that "in the judgment of this body it would be proper and desirable for the Government of these United States whenever practicable to secure in its treaties with other nations a provision for referring

to the decision of umpires all future misunderstandings that cannot be satisfactorily adjusted by amicable negotiation in the first instance, before a resort to hostilities shall be had."

Two years later the same committee reported a resolution of advice to the President suggesting a stipulation in all treaties hereafter entered into with other nations referring the adjustment of any misunderstanding or controversy to the decision of disinterested and impartial arbitrators to be mutually chosen.

In 1874, both the House and the Senate adopted resolutions favoring arbitration.

Again, in 1888, the Committee on Foreign Relations proposed to the Senate a resolution requesting the President "to invite, from time to time, as fit occasions may arise, negotiations with any government with which the United States has or may have diplomatic relations, to the end that the differences or disputes arising between the two governments which can not be adjusted by diplomatic agency may be referred to arbitration, and be peaceably adjusted by such means." In 1890 Congress adopted this resolution.

After the first tentative Pan-American Conferences, following the announcement of the Monroe Doctrine, the efforts of this country toward the development of plans for arbitration and world peace were interrupted by a policy of development by conquest which we adopted in the Southwest. According to many historians, we were led into this policy by the slave interests and it has been regretted by many of our later statesmen, including Roosevelt, who declared our war with Mexico to have been an unjust war of unholy aggression.

When President Tyler brought about the annexation of Texas, he said that "the question of boundaries was purposely left open for negotiation" and he expected these would be adjusted "by pacific arrangement." But his successor, President Polk, sent the army to occupy the disputed territory with no authority from Congress, and the war with Mexico was precipitated.

During the Civil War the tradition of peace did not die out. The attitude of Lincoln throughout the war—the attitude even of our great generals, such as Grant, who stated, . . . "There never was a time nor a day when it was not my desire that some just and fair way should be established for settling difficulties, instead of bringing innocent persons into conflict, and withdrawing from productive labor able-bodied men," and Lincoln's policy of magnanimity at the close of the war, strengthened the will of the people of this country to peace and prevented the development of a spirit of militarism which might easily have resulted from the conflict.

Immediately following the Civil War there was a strengthening of our ties with Latin America. In 1871, during Grant's first term as Presi-

dent, the mediation of the United States resulted in the settlement of the war between Spain and the three countries, Peru, Chile, and Ecuador. President Grant's own influence toward the development of arbitration is reflected in the following statement which has especial interest to-day:

"I look forward to a day when there shall be courts established that shall be recognized by all nations, which will take into consideration all differences between nations, and settle by arbitration or decision of such courts, these questions."

In 1880 President Hayes was chosen as perpetual arbitrator by Chile and Colombia, and the series of Pan-American Conferences referred to above followed.

During this same period America was also playing a leading part through the Hague Peace Conferences in promoting closer international relations in Europe.

The Hague Conferences

The First Hague Conference, in 1899, was called by the Czar of Russia, but its program followed closely the suggestions of the American delegates. The most notable of these was our proposal for an international court, which was known as the "American plan." The plan as adopted was modified into a court of arbitration, the Hague Tribunal. Each state was permitted to nominate not more than four persons for the tribunal, from which panel a special court was to be selected for each case, and in 1901, the court was declared organized and ready for work. It has settled sixteen international disputes, the first of which was a dispute with Mexico submitted by the United States.

The Second Hague Conference was suggested by the United States. At this conference the American delegates proposed and championed a permanent court of arbitral justice. Because the mode of selecting the judges could not be decided upon, the establishment of the court was deferred.

In spite of the war with Spain the administrations of McKinley and Roosevelt were marked by certain definite efforts for the promotion of arbitration and peace. In his first inaugural address President McKinley pointed out that "the leading feature of our foreign policy throughout our entire national history" had been our insistence on "the adjustment of difficulties by judicial methods rather than by force of arms."

Hay's Boxer Settlement and Arbitration Treaties

In the settlement of the Boxer difficulty, this country, under the leadership of John Hay, McKinley's Secretary of State, by the return of the indemnity performed a notable service in the cause of world peace, and set an example for better international relations. During his term of office, Hay also negotiated a number of arbitration treaties between

this and other countries, in which it was agreed that all legal questions, not including those of "national honor" or "vital interest," should be submitted to the Hague Tribunal. These treaties were so amended by the Senate that President Roosevelt declared they were useless and refused to sign them. But Hay's effort was continued by his successor, Elhu Root, who concluded twenty-five arbitration treaties, which were duly ratified and signed.

Taft and Arbitration

President Taft attempted, during his administration, to carry these treaties one step further and to negotiate with France and Great Britain arbitration treaties including all justiciable disputes, even those involving "vital interests" and "national honor." His hope was that the example thus afforded would be followed by other nations until a general treaty could be formulated in which the peoples of the earth would agree to refer all their disputes to a court of arbitral justice. These treaties were so weakened by the Senate that Taft refused to sign them.

President Taft also resisted much pressure for war with Mexico. William Kent in a speech in Congress August 19, 1912, said: "In the face of pressure of all sorts and of almost unbearable complications he (Taft) refrained from war with Mexico and showed himself a friend of peace." Mr. Kent wrote the following letter to President Taft:

"Dear Mr. Taft: As one interested in Mexican investments, I wish to commend in the highest terms your policy of non-interference. Every American dollar and every American life in Mexico is there subject to the risk of the possessor. If I would not myself go to Mexico to risk my life in defense of my property interests, I would be no less than a murderer to ask that the men in our army assume such a risk."

Bryan's Plan for a Permanent International Commission of Investigation

When William Jennings Bryan became Secretary of State under President Wilson, he secured the ratification by the Senate of treaties between the United States and twenty-nine other countries, providing for the investigation of all disputes by a permanent international commission composed of one citizen of each nation, one chosen by each nation from a foreign nation and a fifth selected by agreement. A year's time is allowed for investigation, during which period there are to be no hostilities.

Roosevelt's Offer of Mediation

Roosevelt, basing his action on the provision of the First Hague Conference that neutral nations might offer their services in the settlement of disputes, actively intervened in the Moroccan affair between

France and Germany in 1905, and initiated the conference which ended the Russo-Japanese War, for which he received the Nobel Peace Prize.

Congress for Armament Limitation, 1910

During this same period, the interest of Congress in the question of world peace was evidenced in various ways, for instance by the following resolution passed in 1910 that "a commission of five members be appointed by the President of the United States to consider the expediency of utilizing the existing international agencies for the purpose of limiting the armaments of the nations of the world by international agreement, and of constituting the combined navies of the world an international force for the preservation of universal peace, and to consider and report upon any other means to diminish the expenditures of governments for military purposes and to lessen the probability of war."

Organization of Peace Societies

Behind this official effort in behalf of world peace there was growing up in this country during the nineteenth century a strongly organized public opinion. The first peace society in the world was organized in New York City in 1815, closely followed by others in Ohio and Massachusetts. Other societies sprang up in Maine, Rhode Island, Vermont, North Carolina, Pennsylvania, Connecticut, New Hampshire and Georgia. In 1828, the first national peace organization was founded by William Ladd and called the American Peace Society. For almost a century this society has promoted the cause of peace through national and international conferences, through publications and by the proposal of definite plans for world organization which have undoubtedly influenced the present League of Nations and World Court. Many of our leading public men have, generation by generation, been affiliated with the peace organizations; among them, Noah Worcester, William Ellery Channing, Elihu Burritt, Horace Mann, William Lloyd Garrison, Whittier, Emerson, Longfellow, Lowell, Holmes, Charles Sumner, Phillips Brooks, Joseph Choate, Benjamin Trueblood, Justice Brewer, President A. Lawrence Lowell, John Hay, Philander C. Knox, William Howard Taft and Elihu Root. The list is endless, for there are to-day in this country nearly one hundred organizations representing a membership of about forty millions organized to work directly for peace or supporting the peace movement through affiliation or by resolution. The gifts of Edwin Ginn and of Andrew Carnegie establishing permanent foundations for peace work are unparalleled in any other nation.

In a notable essay Ladd himself recommended a Congress of Nations to formulate international law and a permanent international court to

administer it. His plan for a court formed the basis of the American proposal at the Hague Conference and is followed closely in the present World Court.

The War to End War

The platforms of the Democratic and Republican parties began in 1872 to reflect the desire of the people that this government promote the interest of world peace. Since the opening of the World War our political campaigns have centered around issues of war and peace. We entered the World War "to end war." President Wilson, in his Fourteen Points, attempted to create at the close of the war the same spirit between victors and vanquished that Lincoln had sought by his attitude toward the South at the close of the Civil War; and in an effort to prevent the recurrence of war the American Delegation to the Peace Conference, led by President Wilson, proposed the epoch-making plan of the League of Nations, probably the greatest single effort in history to establish international peace.

The League of Nations

Wilson, himself, said of the League:

"The League is not only a union of free peoples to guarantee civilization; it is something much more than that. It is a League of Nations to advance civilization by substituting something that will make the improvement of civilization possible.

"I call you to witness that our civilization is not satisfactory. It is an industrial civilization, and at the heart of it is an antagonism between those who labor with their hands and those who direct labor. You cannot compose those differences in the midst of war, and you cannot advance civilization unless you have a peace of which you make the fullest use in bringing these elements of civilization together into a common partnership in which every man will have the same interest in the work of his community that those have who direct the work of the community. We have got to have leisure and freedom of mind to settle these things."

And again, he said: "The only way we can prevent the unspeakable thing from happening again is that the nations of the world should unite and put an irresistible force behind peace and order. There is only one conceivable way to do that, and that is by means of a League of Nations."

Though the League was not accepted by the United States Senate, as finally drafted, it is still a pressing issue before the people and our entrance urged by non-partizan groups "on almost any terms" on the ground that it is a League "not for war nor only to prevent wars, but above all, a League for peace, solving many international problems with which one or a few nations can not deal, such as famine, epidemics, and age-long injustices to submerged minorities in many nations."

Limitation of Armament and the World Court

The Harding administration approached current problems of peace and war from two angles. In the first year of his administration, in line with the resolution passed by Congress in 1910, President Harding summoned an International Conference for Limitation of Armaments. The purpose of the President and of his Secretary of State, Mr. Hughes, to promote the interest of world peace by means of this Conference, is attested many times in their official statements.

In the invitation to the Conference there is this statement of the reason for limitation of armaments:

"It is idle to look for stability, or the assurance of social justice, or the security of peace, while wasteful and unproductive outlays deprive effort of its just reward and defeat the reasonable expectation of progress. The enormous disbursement in the rivalries of armaments manifestly constitute the greater part of the encumbrance upon enterprise and national prosperity; and avoidable or extravagant expense of this nature is not only without economic justification but is a constant menace to the peace of the world rather than an assurance of its preservation."

In his opening address to the Conference, President Harding said:

"In soberest reflection the world's hundreds of millions who pay in peace and die in war wish their statesmen to turn the expenditures for destruction into means of construction, aimed at a higher state for those who live and follow after. . . . I hope for that understanding which will emphasize the guarantees of peace, and for commitments to less burdens and a better order which will tranquilize the world."

In addition to the limitation of armaments, the Harding administration proposed, as a world peace measure, adherence to the World Court, which, though instituted by the League of Nations, is largely the creation of American jurists and goes back to the original "American plan" for a permanent court rather than for a court of arbitration such as the Hague Conference set up. Adherence to the Court was not voted until the following administration under President Coolidge, and then with certain reservations not fully acceptable to other nations. Besides advocacy of the World Court, the public utterances of both Harding and Coolidge have consistently urged the preeminent importance of efforts to protect the world against the recurrence of war.

The Outlawry of War

Unsatisfied with any of the proposals for world organization, Senator Borah in 1923 put before the country a further proposal, which originated with an American lawyer, Salmon O. Levinson, and was developed by

him in collaboration with the late Senator Knox. This plan calls for the definite outlawry of war, with the codification of international law, with penalties not only for nations but for individuals whose activities incite to war.

Influence of American Form of Government

In the League of Nations and the World Court there is evidenced the direct influence of the Constitution of the United States and of the United States Supreme Court. The formation of the Union out of thirteen jealous sovereign states with conflicting views and interests was in reality an experiment in international government. When the Constitution was adopted, Benjamin Franklin recognized, at once its value as an example for a world republic and wrote to a friend in Europe:

"I send you enclos'd the propos'd new Federal Constitution for these States. I was engag'd 4 Months of last Summer in the Convention that form'd it. It is now sent by Congress to the several States for their Confirmation. If it succeeds, I do not see why you might not in Europe carry the Project of good Henry the 4th into Execution, by forming a Federal Union and One Grand Republick of all its different States & Kingdoms; by means of a like Convention; for we had many Interests to reconcile."

The Question for Citizens

The founders of the Republic conceived the establishment of world peace as one of the missions of the nation they created, and constantly sought ways and means to carry it out. Inspired by their vision and efforts, the greatest of the statesmen who have succeeded them have made the influence of this country an influence for peace, and have repeatedly proposed plans for the restriction and abolition of war. The struggle between the influences that make for rule by force and those that seek world coöperation has now reached a crisis. The influence of the United States in this struggle will be decisive. What that influence is depends upon the individual citizen and whether or not he loyally supports those forces in the government which to-day are seeking to carry out the traditional democratic peace policy of our country.

4. EXPERIMENT AS A SUBSTITUTE FOR DEBATE IN WORLD PROBLEMS¹⁸

Let us substitute, to some degree, experiment for debate. Let each step be small in order that we may gain experience and so patiently, but soundly, make advances in this most important field of human endeavor.

Will you permit me to give a more specific illustration of what I mean?

¹⁸ Owen D. Young, member of the Dawes Committee, in an address delivered at the Annual Dinner of the National Institute of Social Sciences, May 4, 1925. National Institute of Social Sciences, *Journal* 10. 12-14, October, 1925.

The whole world is throwing out an anguished cry for peace now that the debauch of war is over. We look at its cost with the depression of the morning after. We see the flower of a whole generation using our advances in the arts and industry to destroy each other without even the thrilling pageantry that formerly went with war. Our desolated homes, our economic burdens, our human losses, all lead to the prayers and cries of a united world, to outlaw war. But what are the practical things we are doing, Mr. President? Prayers, and longing, and debate must be supplemented by action and we do not act. We delay joining a World Court, while we debate the question of national sovereignty and endeavor to show that the principles of international jurisprudence are not sufficiently worked out to warrant our taking the alleged risk. Just as if international jurisprudence ever would be worked out until we develop, through trial and error, those principles out of real cases which require practical decision. In that way our common law has grown and is growing. In that way our international law will grow. Let the debates and education go on. I am not decrying their value but I do say let us supplement them with action, carefully and wisely taken, but action. Let us join a World Court. Let us get the practical processes of peaceful decision operating while the world is crying for peace. Let us get our experience and strengthen these international peace agencies in order that they may be strong to meet the issues of the future in a new generation which will not itself have experienced the horrors of war as we have done. Then, again, may I repeat what I have said elsewhere? Let us take practical steps to establish research agencies for facts in international problems. Such an agency is the Walter Hines Page School at Johns Hopkins. This is not to be a school of international law. We already have ample professorships for that. It is a research organization for facts, and facts particularly in the international situation are most difficult to get. From my own experience I know that democratic governments are not good agencies through which to develop facts in the international field. No political representative of the people, either in France or in Germany, or for that matter in all Europe, dared to face his own constituents with the true facts regarding reparations. I say it without criticism of the politician because had he done so he would have accomplished nothing but his own defeat. I make he point only that the very nationalist feeling which strengthens democratic government at home is, in itself, a barrier to the discovery of facts in the international field, particularly when those facts turn out to be unpleasant or unpopular to the electorate. Then we have ignorance instead of knowledge, and ignorance in international affairs, as well as elsewhere in the world, can lead only to misunderstanding. In the very nature of the case let us take this practical step of establishing impartial research agencies in all the countries of the world in order that facts may be found and stated free from domestic political color.

These may be very small steps toward that great ideal, the outlawry of war, but I venture the prediction that if we take them and then follow with others like disarmament conferences, arbitral commissions and similar activities, as our experience develops, we will go far in the course of years to get practical results for our prayers.

II. THE LEAGUE OF NATIONS

I. ITS ORGANIZATION AND FUNCTIONS¹⁴

As we have seen, a permanent association of nations has long been a dream of the human race. Its establishment became one of the objectives of the World War and under the chairmanship of Woodrow Wilson a Commission of the Peace Conference worked out a project for a League of Nations which was adopted by a plenary session of the Peace Conference on April 28, 1919. On January 10, 1920, the League of Nations came into legal existence with a membership of twenty-four states. Although Woodrow Wilson had sacrificed a great many of his "fourteen points of peace" in order to secure the League Covenant, as was to be expected he met vigorous opposition in the Congress of the United States. Due to the stubborn refusal of Woodrow Wilson to allow any reservations to be added in the Senate, it has been consistently opposed in that body and there seems little possibility of the United States joining the League in the near future. In 1930 fifty-five states belonged to the League of Nations, including nearly every important power except Brazil, which had withdrawn, Soviet Russia, and the United States.

The chief purpose of the League is "to promote international coöperation and to achieve international peace and security." Any state, dominion or colony can join provided it secures the consent of two-thirds of the members of the assembly, and any member can withdraw provided it gives two years' notice. The three chief bodies of the League are (1) The Assembly, (2) The Council, and (3) The Secretariat.

The Assembly represents all the member States. It is the organ of the League whose work is most closely followed by the public, and whose meetings, owing to the publicity afforded to them, have the greatest reaction on world opinion. It is, however, a cumbersome piece of machinery, necessitating the attendance of a very large number of persons.

The Council, being a smaller body, can meet more easily and more often and can therefore despatch business with greater speed and continuity.

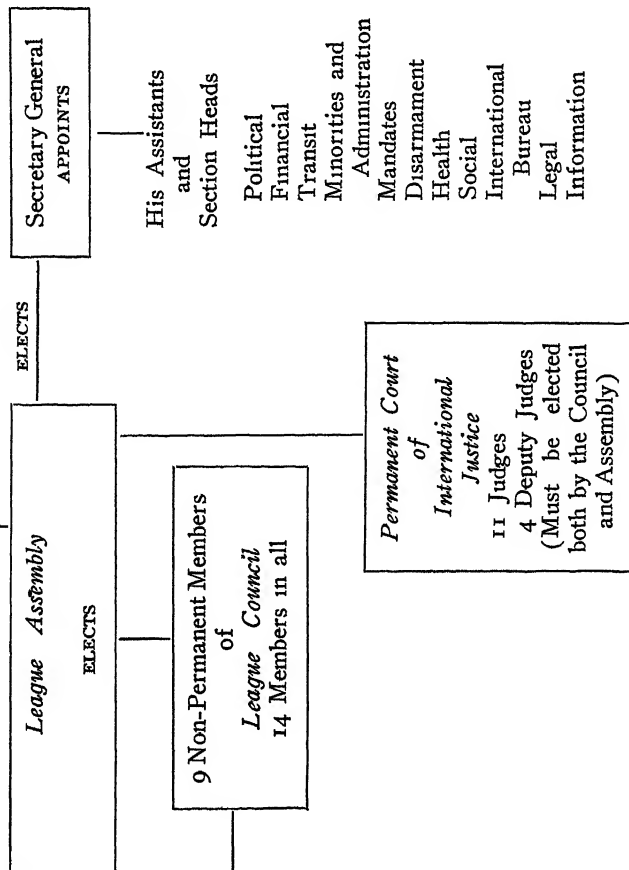
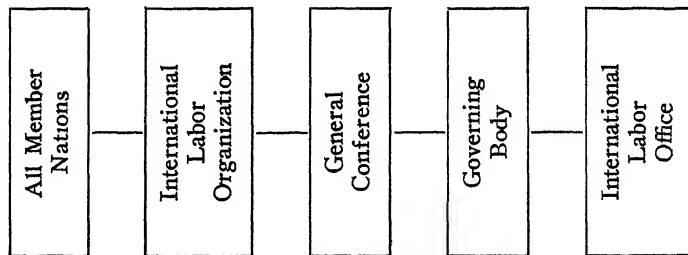
¹⁴ The writer is indebted to *The Aims and Organization of the League of Nations* published by the Secretariat of the League of Nations 1929 for most of the material in this section. It has been somewhat abbreviated so that quotation marks are not used.

CHART OF THE LEAGUE OF NATIONS¹⁵

Great Britain, France, Italy, Japan and Germany
alone each send one member to

with

49 other Member Nations
send delegates to



¹⁵ Dr. Ivarona Davis

Its composition has changed several times. At present it consists of fourteen members: five permanent members—the Powers with worldwide interests, Great Britain, France, Germany, Italy and Japan; and nine non-permanent members, each chosen by the Assembly from among the other States. Members to hold office for three years. It can thus be seen that the Great Powers always have membership on the Council.

There is no clear line of demarcation in the powers of Assembly and Council. Either may deal with any matter “affecting the peace of the world.”

The decisions of the Assembly and the Council must, in general, be unanimous. Certain exceptions to this rule are enumerated in the Covenant, *e.g.*, questions of procedure, admission of new members, and the case of a dispute which is being dealt with, not by the Council, but by the Assembly. In such a case, if the Assembly has been unable to effect a settlement, it may adopt the report with the unanimous approval of the members represented on the Council and the approval of the majority of the other members—the representatives of the parties being in each case excluded.

When a dispute which is deemed likely to lead to a rupture is under consideration, the representatives of the disputing parties do not vote. When there is no such danger their votes are taken into account. Members abstaining from voting are presumed to be absent—a rule applying throughout the organizations of the League.

The rule of unanimity is intended to safeguard the national sovereignty of the States Members, who cannot be bound against their will. The League of Nations is not a super-State. The necessity of securing unanimity for a proposal gives the League its diplomatic character, and distinguishes the Assembly from an ordinary Parliament.

The League does not attempt to impose solutions, but to find them in compromises among conflicting points of view. If the requisite unanimity is not obtained and a draft resolution is only adopted by a majority, the resolution changes its name and character and becomes simply a *recommendation*; as such it is not binding on the members, but has the moral force attaching to a desire expressed by a large number of them.

It is important to notice that both in the Assembly and in the Council the representatives are not elected but appointed by the member nations.

THE ASSEMBLY

Composition and Sessions

The Assembly, as has been said, consists of representatives of all the States who are members of the League. Each member may send not more

than three representatives, men or women, and these three representatives command one vote only; they may be accompanied by substitute delegates, technical experts, and secretaries.

The Assembly meets annually, on the first Monday in September, at Geneva, and in ordinary session lasts about a month. It may, however, vote to meet more frequently. A special session of the Assembly may even be summoned at the request of one or more members, provided a majority of the members concur.

Character of the Assembly

Consisting as it does of delegates of Governments, in continual contact with those Governments by the rapid means of communication now available, the Assembly inevitably reflects the opinions of those Governments. Each State, large or small, possesses one vote in the Assembly. If it represented all the nations of the world and if unanimity could always be obtained, the power of the Assembly would be practically boundless, but actually unanimity is not always possible and all nations are not Members. For purposes of practical discussion it is unwieldy, and pessimists might be tempted to look upon it as doomed by its very magnitude to inaction and helplessness. In reality the Assembly, as it exists to-day, possesses very real power, some idea of which may be gained by studying the work it does. . . .

Special Powers of the Assembly

The following are the most important of its special powers:

It can admit new Members to the League.

It periodically elects the non-permanent Members of the Council.

It controls the budget of the League, and is thus able to make its influence felt over the various League organizations; by withholding credits it can put a stop to any activity of which it does not approve.

It apportions, on a regular scale, the share of the cost of the League to be borne by each State Member.

It can advise the reconsideration by Members of the League of treaties which have become inapplicable, or the consideration of international conditions whose continuance might endanger the peace of the world.

In discussing the report submitted to it by the Council, it passes in review the work of the past year, and gives the Council and the Secretariat instructions for the succeeding year.

Finally, it can make amendments to the Covenant.

Amendments to the Covenant

It was not possible to foresee in the Covenant all the developments which might take place in the League. The Covenant could not provide in advance for all the questions of procedure, etc., which might arise and it is the Assembly that carries out these constitutional revisions

When these amendments have been adopted by the Assembly, they do not come into force until they have been ratified by all the States Members of the Council and by the majority of the States Members of the League. Five amendments to the Covenant have thus been voted and ratified. They have not, however, made any profound change in the general organization of the League

Procedure

The Assembly opens under the presidency of the President of the Council in office for the time being. It elects its officers, apportions the questions on the agenda among its six large committees, on which every State has one representative, and then proceeds to a general discussion of the Council's report.

The Committees

These six committees deal with the following subjects:

1. Constitutional and legal questions;
2. Work of the technical organisations;
3. Disarmament;
4. Budget and questions of internal administration;
5. Social questions;
6. Political questions.

The Assembly refers to these Committees the reports which the various organizations of the League have presented and the resolutions brought forward by any State Member. The Committee appoints a *rapporteur* who submits to the Assembly an account of the discussions and the conclusions reached. The Assembly then receives the final resolutions, and, with or without debate, adopts or rejects them.

Languages

The official languages of the League are English and French, and speeches delivered in one are interpreted into the other. Not the least surprising feature to those attending a session of the Assembly for the first time is the skill with which the interpreters do their work. The use of one of the two official languages is not, however, compulsory and each delegate

may speak in any language he chooses, but in this case the speaker is responsible for providing the interpretation into one of the two official languages, and the speech is then immediately interpreted, as before, into the other.

Influence of the Assembly

It is now possible to see how far the analogy between a national Parliament and the Assembly holds good. The unique character of the latter rests not so much on the details of its procedure, but on its worldwide scope and influence. It brings into direct contact men and women of the higher political and intellectual circles of many nations, so that their national points of view may be openly stated and considered. Furthermore its discussions are attended by an imposing number of journalists—over 400—who have every facility for obtaining information. Their telegrams and articles are reproduced and commented upon in the Press of the world. Public opinion everywhere follows the debates at Geneva with serious attention, particularly when they concern guarantees of peace and security. The statesmen who take part in these debates know that their words, their gestures, their acts, even their silences, will be broadcast, in all countries, whether belonging to the League or not.

THE COUNCIL

Composition

The Council meets, in practice, every three months—in March, June, September and December—usually at Geneva, but it can be summoned at any time in an emergency. It consists of fourteen Members, five of them permanent, namely the Powers with worldwide interests—France, Germany, Great Britain, Italy and Japan—and nine non-permanent, chosen by the Assembly from among the other Members of the League.

The present organization of the Council dates from the admission of Germany to the League in September, 1926, since which date she has occupied her permanent seat. To fill the nine non-permanent seats, the Assembly elects each year three Members each of whom sits for three years. A retiring Member is not eligible for reelection during the three years following the end of its term of office, unless the Assembly decides to the contrary, by a two-thirds majority, at the request of the State retiring.

Owing to the growing importance of the Council in international affairs, there is frequently very keen competition for non-permanent seats among the States Members.

Powers

We need not here recapitulate the powers which belong alike to the Council and the Assembly, and we shall later examine in detail the methods employed by the Council in carrying out its main duty, the settlement of disputes. We are here concerned only with its special powers.

Of the Council's special powers, some are exercised in virtue of the Covenant and some in virtue of the Treaties of Peace.

In virtue of the Covenant the Council is responsible for:

- (a) Preparing a plan for the reduction of armaments;
- (b) Supervising the exercise of the mandates entrusted to different Powers in countries where the inhabitants are not yet capable of full self-government;
- (c) Approving the appointments made by the Secretary-General in the Secretariat.

In virtue of the Treaties of Peace:

(a) The Council, as trustee for the government of the Saar, appoints the members of the Commission responsible for the administration of that Territory and receives a report from the Commission every three months. The Council's decisions concerning the Saar are taken by a majority vote. This task will come to an end in 1935, when the final status of the Territory is to be determined by a plebiscite;

(b) The Council appoints the High Commissioner for the Free City of Danzig, which is under the League's protection, and settles all disputes that may arise between the Free City and Poland;

(c) The Council watches over the protection of the minorities in various States which have undertaken to accept its supervision. It is for the Council to enforce respect for the rights of these racial, linguistic and religious minorities, amounting to as many as forty millions of people.

All the work of the Council in these different fields is subject to discussion in the Assembly.

Procedure

The presidency of the Council changes at each session—one country succeeding another in alphabetical order.

The procedure for business is very simple. The Council appoints one of its members to take charge of each item on the agenda; he is known as the *rapporteur*, a term adopted from the French and is chosen as far as pos-

sible from a country that has no interest in the matter at issue. He prepares his statement with the necessary assistance of the Secretariat, and submits it, together with his suggested solution, for the consideration of the Council.

As a general rule the Council meets in public, but it can meet in private when it thinks fit. The Minutes, however, are always published.

ADMINISTRATIVE ORGAN—THE PERMANENT SECRETARIAT

The Secretariat

The permanent Secretariat was instituted by Articles 3 and 6 of the Covenant. It represents the Civil Service of the League, and—bearing in mind the difficulties always attending any attempt to establish an analogy between the organization of the League and that of an individual State—it may be compared roughly to the different Government Offices of a national administration.

It comprises about 600 officials of various grades, under the authority of a Secretary-General.

The Secretary-General

The first Secretary-General, Sir James Eric Drummond, was named in an annex to the Covenant. In the future the Secretary-General will be appointed by the Council with the approval of a majority of the Assembly.

He is *ex officio* Secretary-General of the Assembly and of the Council.

He appoints the members of the Secretariat, with the approval of the Council.

Duties of the Secretariat

The Secretary-General is assisted by a Deputy-Secretary-General and by three Under-Secretaries-General.

The officials of the Secretariat are international officials, responsible to the Secretary-General alone; they may not receive instructions from any other authority, in particular from their own Governments, and they enjoy diplomatic privileges and immunities in the discharge of their duties.

The members of the Secretariat are divided, not according to their various nationalities but according to the nature of the questions with which they have to deal, into several sections, some under a Director and others under a Chief of Service.

Each section acts as the secretariat of one of the Committees or Organizations. The principal sections of the Secretariat are as follows:

The Political Section,
The Economic and Financial Section,
The Transit Section,
The Administrative Commissions (Saar and Danzig) and Minorities Section,
The Mandates Section,
The Disarmament Section,
The Health Section,
The Social Section,
The Intellectual Coöperation and International Bureaux Section,
The Legal Section,
The Information Section.

The names of these different sections give sufficient indication of their work. The Legal Section acts as legal adviser to the other sections, and also registers and publishes treaties in pursuance of Article 18 of the Covenant.

The Secretariat collects all information necessary for the consideration of the questions that come before the League, not merely facts and statistics, but appreciations of the imponderable and elusive factors that often weigh so much in international questions. The Press of the world is of course studied, but the views expressed by organizations that may represent various shades of public opinion are not neglected, *e.g.*, associations of ex-service men, working-class organizations without distinction of political or religious tendency, women's organizations, the Churches, Freemasons, Red Cross organizations, Rotary Clubs. Reliable political and economic information does not suffice; the League must also have a sympathetic knowledge of the personal feelings of the men and women for whose well-being it ultimately exists.

The Secretariat not only collects information but also distributes it. Over a hundred newspapers and agencies are permanently represented at Geneva. More than twelve hundred reporters belonging to over fifty different countries and representing close on a thousand newspapers and periodicals have visited Geneva in the last few years. The communiqués issued, while very full, only state bare facts. They provide the raw material from which each writer selects for his own public.

In addition to communiqués and verbatim reports of important conferences, the Secretariat publishes a monthly summary of the work of the League. Each year it issues a general review and from time to time fresh editions of the booklets which give accounts of the work of the League in some definite direction. It is one of the functions of the League to provide the accurate and detailed information on which alone reasoned public

support can be based. A special section of the Secretariat, the Information Section, has therefore been formed to organize this continuous contact with the outside world.

The bulk of the duties of the Secretariat are similar to those carried out by the officials of a national Government. They prepare the agenda for all meetings and conferences, carry out the decisions taken, and ensure permanent liaison between the different countries.

The Secretariat gives to the League of Nations the factor of stability necessary to all institutions, if they are to be permanent. It acts as the League's memory, and in the frequent changes in the representatives who attend the Council, the Assembly, and the various Committees, it promotes continuity of policy.

THE AUXILIARY ORGANIZATIONS

Their Purpose

No study of the League would be complete which did not give an idea of certain subsidiary bodies essential to its work. These are the auxiliary organizations, whose creation marks an important step in the development of international coöperation. Some of them are permanent, and deal with matters in which the League's activities are continuous. Others are created to meet temporary difficulties, and disappear with their solution.

A distinction must be made between the technical organizations and the Advisory Committees.

Technical Organizations

The technical organizations are three:

The Economic and Financial Organization,
The Transit Organization,
The Health Organization.

In the world of to-day there are a large number of economic, financial and commercial questions which are liable to give rise to political disputes. Through these organizations of the League such problems are handled in the first instance by eminent technical experts belonging to different countries. The experts combine to discover the best practical solutions, and they have the more chance of success because their discussions are conducted in an atmosphere of detachment.

In these committees and conferences the League's work is continuous throughout the year. It is here that experts of all countries meet, that new bonds are formed between nations, and old ones strengthened. Specialist

meets specialist to discuss technical questions, and on technical questions international understanding is less difficult. The value of such meetings can, of course, only be fully appreciated by specialists, but a few examples will give an idea of the nature and importance of this work unobtrusively and steadily going on at Geneva.

Advisory Committees

The Advisory Committees are either permanent or temporary. The following are the chief permanent Committees :

- The Commission for Military, Naval and Air Questions,
- The Mandates Commission,
- The Commission for the Protection and Welfare of Children and Young People,
- The Committee on Opium and other Dangerous Drugs,
- The Committee on Intellectual Coöperation.

These Committees have no power to take decisions, but prepare material to be submitted to the political organs of the League.

The Assembly sits for one month each year, the Council four times a year, but only for about a week each time. The work of the League must, however, go on continuously and in practice it does so. Hardly a week goes by without one of the auxiliary organizations holding a session. . . .

TECHNICAL ORGANIZATIONS

Economic and Financial Organization

Composition.—This Organization was set up as a result of the Brussels International Financial Conference of 1920. It is divided into two sections, the Financial Committee and the Economic Committee. Each Committee operates independently, but they meet together in plenary session when necessary.

The members of the Organization are not official representatives of their Governments, but are chosen by the Council as experts. They include high officials, directors of large banks, chairmen of companies, statistical experts, all holding high positions in the business world and giving the League disinterested help.

The secretariat of this Organization is formed by the Economic and Financial Section of the League Secretariat.

Duties.—Belonging to this Economic and Financial Organization are numerous committees and sub-committees, too many to be enumerated here,

which study, each in its own sphere, the various economic and financial questions of concern to the League. It was this Organization that prepared the plans for the financial reconstruction of countries whose credit and currency were particularly hard hit as a result of the war and for the settlement of hundreds of thousands of refugees in war-desolated areas.

These plans have made it possible to float international loans which at the present time amount to 1,700 million gold francs.

The International Economic Conference, convened at Geneva in 1927, drew up a program for the improvement of the world economic situation. On its advice the Council has appointed a special Consultative Committee to supervise the progressive execution of the Conference's resolutions on commercial, industrial and agricultural questions.

Organization for Communications and Transit

Composition.—The authors of the Covenant realized how the great war had accentuated the economic inter-dependence of nations throughout the world, particularly in Europe, where empires had been dismembered and divided into a number of States, too small to be economically self-sufficient, but determined to preserve their political independence.

The Organization we are about to consider was constituted by the desire of the Assembly at its first ordinary session, at the close of the General Conference on Communications and Transit held at Barcelona in 1921; it comprises an Advisory Committee, a General Conference, and a secretariat formed by the Transit Section of the League Secretariat.

Advisory Committee.—The Committee consists of delegates chosen by the permanent Members of the Council, and delegates appointed by the General Conference from among the other Members of the League.

This Committee considers measures to ensure the freedom of communications and transit, and to help the Council to adjust by conciliation any disputes that arise. It also prepares the work of the General Conference. The Committee's duties are mainly technical, but may have a political bearing. Take, for instance, the River Danube. The navigability of the river, the lighting of channels, buoyage, the upkeep of locks, dams, wharves and harbors are technical questions which have to be dealt with by experts. But the Danube flows along the boundaries or through the territories of seven different States, whose interests, conflicting perhaps, are in the hands of diplomatists. Many different considerations have therefore to be taken into account, some purely technical and others of undeniable political importance, if the life of the river and the dwellers on its banks is to be organized on lines acceptable to all parties.

The Committee has not supplanted the numerous organizations which already existed before the war to study questions of international transit, but has endeavored to coördinate their work and give added effect to their decisions—as, indeed, in the case of the River Danube.

Subordinate Bodies.—It would be unnecessary and wearisome to study all the temporary and permanent committees which are dependent upon each of the auxiliary organizations. Nevertheless, by way of an example, a bare list of the committees and commissions subordinate to the Transit Organization¹⁶ may give an idea of the League's methods of improving international coöperation, of its care for detail, of its specialized technical competence, and of its adaptability to the most varied tasks.

General Conference.—The General Conference meets when summoned by the Council. It consists of a representative of each State Member, accompanied by substitutes and experts. The League may also invite non-Member States to participate.

The procedure is similar to that of the Assembly. Proposals made by this Conference may take the form, subject to the Assembly's or the Council's approval, of international conventions, resolutions or recommendations to Governments.

Health Organization

Organization.—The International Health Organization, whose highly technical work is of the greatest importance in a world of frequent and rapid communications, was instituted in coöperation with the *Office international d'hygiène publique*, a previously existing organization.

The Health Organization comprises:

An Advisory Council, formed by the Committee of the *Office international d'hygiène publique*;

A Health Committee, whose headquarters are at Geneva;

A Secretariat, consisting, as is customary, of the corresponding section of the Secretariat of the League.

States not Members of the League, like the United States of America and the Union of Socialist Soviet Republics, have decided not to subordinate their coöperation in health matters to political considerations, and have joined the Health Organization.

¹⁶ Ports and Maritime Navigation, Inland Navigation, Transport by Rail, Electric Questions, Road Traffic, Legal Questions, Telegraphy, Buoyage and Lighting of Coasts, Maritime Tonnage Measurement, Private Law in Inland Navigation, Statistics of Inland Navigation, Competition between Waterways and Railways, Combined Transport, Question of Identity-Documents for Persons without Nationality, Cards for Immigrants in Transit.

Duties.—The Health Committee's work is, of course, strictly technical, but its methods illustrate in a striking manner the possibilities of international coöperation. With the Council's approval, the Committee has appointed, for instance, a Malaria Commission to study malaria conditions in different parts of the world, and to recommend methods by which it can be fought. The members of the Commission, all experts on malaria in their various countries, have, as a result of invitations from a number of States, visited Palestine, Spain, the United States, the Kingdom of the Serbs, Croats and Slovenes, Italy, Bulgaria, Greece and Russia. They have studied on the spot the conditions in which malaria develops, the customs of the people, the habits of the mosquitoes which carry the infection, and the various ways of combating the disease. They have compared the results in the different countries, and drawn up a general report, which has been submitted to the Health Committee and published with the Council's approval. This report is now in the hands of all the Health authorities of the world. In this way international coöperation is invoked to aid in the fight against a worldwide disease.

Another form of the Health Committee's work is shown by its weekly report, which gives the number of cases of plague, cholera and smallpox in each port near the known centers from which epidemics spread throughout the world. The station set up by the League in such a danger zone, at Singapore, broadcasts all the urgent information which it receives for the special information of the health officials of all the ports concerned. This information includes details of plague-infected rats; for the plague bacilli which infect the fleas living on the rats which board the ships care nothing for international frontiers.

ADVISORY COMMITTEES

Disarmament

The Problem.—The obligations of the Members of the League in regard to the reduction of armaments are defined in Article 8 of the Covenant.

By accepting the first paragraph of this article, Members of the League have agreed:

(1) That the maintenance of peace requires the reduction of national armaments to a certain minimum;

(2) That this minimum must be consistent with national safety; (for this reason the Members of the League are obliged to study the problem of disarmament jointly with the problem of the security of the various countries);

(3) That the minimum must also be consistent with the enforcement by common action of international obligations, notably the obligations contained in Article 16 of the Covenant.

Such is the general outline of the problem that lies before the League.

The Method.—The method prescribed by the Covenant for arriving at a solution is formulated as follows:

"The Council, taking account of the geographical situation and circumstances of each State, shall formulate plans for such reduction for the consideration and action of the various Governments.

"Such plans shall be subject to reconsideration and revision at least every ten years."

Preparatory Commission for the Disarmament Conference and Committee on Arbitration and Security.—The Council has therefore entrusted the investigation of the disarmament problem in its different aspects to various advisory bodies, of which the principal are:

(a) The Preparatory Commission for the Disarmament Conference (with its Sub-Commissions), whose principal task is to draw up a draft convention for the reduction and limitation of armaments, worked out with such care as to give the first Conference on the Reduction and Limitation of Armaments a prospect of success. This Commission consists of representatives of the States Members of the Council and certain other States, Members and non-Members of the League, whose coöperation has been held to be specially valuable. The three countries non-Members of the League represented on the Commission are the United States of America, the Union of Socialist Soviet Republics and Turkey.

(b) The Committee on Arbitration and Security, which is seeking means of increasing both the general security that the Covenant should afford to its signatories and the individual security of those nations which demand that, in accordance with the Covenant, "their geographical situation and circumstances" shall be taken into account. All the States represented on the Preparatory Commission have been invited to sit on this Committee.

Thus the problem of the organization of peace, including methods of preventing and settling conflicts, has been linked with that of disarmament. The League's work under this heading may be summarized in the familiar formula of "Arbitration, Security and Disarmament." The interdependence of these three terms really deserves a full analysis, but here it need only be pointed out that the general use of arbitration proper, and of arbitration in the broader sense of the word—peaceful settlement of disputes—may make it possible to eliminate war as a means of settling international conflicts; that the security of one nation depends largely on how far it can be assured of the peaceful intentions of its neighbors, which can best be expressed by the voluntary acceptance of other methods than force for

settling disputes. The security of a country which is a Member of the League also depends on the extent of its confidence in the efficiency of the League's machinery for preventing war; for intimidating, if necessary, any country which contemplates, in defiance of the Covenant, resort to force; and—should such a country defy the threat of compulsory measures—for lending effectual aid to the victim of its attack. Lastly, the security of a nation depends on the reduction of the armaments of all nations to the minimum laid down in the Covenant, for competitive armaments constitute a danger to peace.

Permanent Advisory Commission for Military, Naval and Air Questions.—Article 9 of the Covenant provides for the constitution of a permanent Commission to advise the Council on "Military, Naval and Air Questions generally."

This Commission comprises a military, a naval and an air representative of each of the States Members of the Council, appointed by the respective Governments.

Disarmament Section.—The Disarmament Section of the Secretariat acts as Secretariat to all these Committees. It also, in accordance with the final paragraph of Article 8 of the Covenant, compiles and publishes detailed information on the armaments of the different Powers, whether Members of the League or not, in the *Armaments Year-Book*, issued annually, and consisting of some 800 pages.

Mandates

The Mandated Territories.—There are certain territories which as a result of the war have "ceased to be under the sovereignty of the States which formerly governed them and which are inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world."

By Article 22, § 2, the Covenant entrusts the care of these peoples to "advanced nations who by reason of their resources, their experience or their geographical position can best undertake this responsibility, and who are willing to accept it," this tutelage to be exercised by them as Mandatories on behalf of the League.

The Commission.—The body created to advise the Council on all matters relating to the observance of the Mandates is the Permanent Mandates Commission, consisting of eleven members, the majority of whom must be nationals of non-mandatory Powers. As long as they belong to the

Commission, they may hold no post placing them under the direct authority of their Governments.

This Commission studies the reports submitted by the mandatory Powers—Great Britain, France, Australia, New Zealand, Japan, Belgium and the Union of South Africa; it may also consider petitions from the inhabitants of the mandated territories. The Commission's report, which covers all the problems which may arise in the mandated territories, including those of health and education, is submitted to the Council, and then made public to the world. This publicity is designed to guarantee the protection of the inhabitants; at the same time it provides information of great value to administrators.

The Mandates Section of the League Secretariat acts as the Secretariat of the Commission.

Social and Humanitarian Activities

In its social and humanitarian activities, the League of Nations has freely appealed to the international organizations that were in existence before the war. Certain countries not Members of the League have also assisted in this work, which includes not only those duties specifically detailed in the Covenant, Article 23 (c), but also matters such as the restraint of the international traffic in obscene literature, the abolition of the remaining vestiges of slavery, the relief of war refugees who are still homeless, and the repatriation of prisoners of war left without the means of returning to their homes.

The League endeavors constantly to advance the signature and ratification of conventions for the abolition of illicit traffic in opium and other narcotics. The abuse of these drugs is deplored by all Governments, though, owing to the divergent interests of producing and non-producing countries, all do not always agree as to the measures to be taken.

Very similar methods are adopted by the League to secure the abolition of the traffic in women and children. It also takes active steps to promote the protection and welfare of children and young persons, wherever international action seems to the Council or the Assembly to be desirable.

Two permanent Committees deal with the opium traffic and the protection and welfare of children and young people, respectively. The Social Section of the League Secretariat acts as the Secretariat of these Committees. They are separate from the Health Organization, with which, as with the International Labor Organization, they maintain close relations. Their first duty is to keep constant watch over the execution of the conventions actually signed by Governments, but they also collect information and

formulate proposals for the consideration of the Council and the Assembly in the same manner as the other Advisory Committees.

Committee on Intellectual Coöperation

Composition.—Scientists, historians, mathematicians and men of letters have always held that their work knows no barriers of state or race; an astronomer who studied the stars from a national point of view would be the *reductio ad absurdum* of nationalism.

Consisting of fifteen members eminent in letters, science and art, the Committee on Intellectual Coöperation was instituted in 1922 by the Council "to consider questions concerning intellectual coöperation and to develop intellectual relations in the international sphere." Obviously men of learning should be in contact with their colleagues of other nations, and such contact may have consequences of the greatest benefit to science and the cause of peace.

Duties.—The principal work of this Committee is that of developing the interchange of knowledge and ideas among peoples and improving the conditions of intellectual work.

In regard to intellectual and artistic intercourse, it endeavors to assist students and men of learning in one country to become acquainted with important achievements of other countries; with this object a special Sub-Committee, known as the Sub-Committee on Bibliography, studies the best means of coördinating all information which will give at a glance a complete idea of books and articles concerned with the various sciences, and endeavors to make important publications written in little-known languages accessible in languages that are more widely understood. Another Sub-Committee, the Sub-Committee on Arts and Letters, seeks to secure a wider public for literary and artistic achievements.

Coöperation between universities is also regarded by the Committee as one of the best means of promoting international understanding; accordingly it has set up a Sub-Committee on University Relations to facilitate exchanges of professors and students between different countries and to encourage cooperation through the representatives of the international students' associations.

With a view to improving the conditions of intellectual work, the Committee studies the protection of literary and artistic productions, a subject on which some international agreements already exist. No protection is as yet provided for scientific discoveries, and the Committee thinks that it can and should be given. A special Sub-Committee has therefore been set up

to deal with questions connected with the protection of intellectual property, literary, artistic and scientific. The Committee also coöperates with the International Labor Organization in endeavoring to watch over the interests of all intellectual workers, who, like other workers, are entitled to a fair remuneration for their services. When intellectual life has been specially threatened in certain countries, where the effects of the war placed mental workers in a precarious position, or where, for example, a great library was destroyed by a catastrophe, the Committee has appealed to feelings of international sympathy to rescue humanity's precious heritage of art, science and education.

At the request of the Assembly, the Committee on Intellectual Coöperation has convened a Sub-Committee of Experts to study the best means of instructing the young in the aims of the League.

In connection with the Committee on Intellectual Coöperation, a network of National Committees is gradually being spread over the countries of the world, including, already, the United States of America. Each will act as a center both for collecting and diffusing information and will maintain close liaison with the League Committee at Geneva.

The corresponding section of the League Secretariat acts as the Secretariat of this Committee.

International Institute of Intellectual Coöperation—Created by the French Government in 1925 and placed under the auspices of the League, this Institute, whose headquarters are at Paris, serves to prepare and carry out the decisions of the Committee on Intellectual Coöperation, which acts as its Governing Body.

The Institute, which is divided into sections (Literary Relations, Artistic Relations, Legal, Scientific Relations, University Relations, Information), investigates questions referred to it by the Committee, calling in expert advice when necessary; its staff, like that of the Secretariat, is international.

¶ *International Institutes for the Unification of Private Law and for the Educational Cinema*.—Two other international Institutes, under the direction of the League, have been established at Rome by the Italian Government. These are an Institute for the Unification of Private Law and an Institute for the study of the cinema in education. This latter Institute is intended to work in close relation with the International Committee on Intellectual Coöperation.

So far we have been considering in large measure the theoretical organization of the League of Nations, but let us now take up the concrete

method by which it handles its work in the case of conflicts which threaten war. As one example consider a dispute between Bulgaria and Greece in 1925. Both these countries maintained troops close together on their respective borders, and occasional skirmishes resulted. Finally, Greek troops were ordered to advance into Bulgarian territory and actually went five miles over the line. The Minister of Foreign Affairs in Bulgaria telegraphed to the Secretary-General of the League of Nations, asking him to summon immediately a meeting of the Council. Within four days, on October 26, the Council met at Paris, at least one member having arrived by airplane. Statements were presented by both Bulgarian and Greek representatives and they were persuaded to join in asking the governments of the two countries to order their troops to withdraw and remain within their own frontiers. The Council then appointed a Commission to investigate the incident and both countries agreed to adopt its findings. The result of the Commission's report was that Greece had to pay \$210,000 to Bulgaria for damage done. Actually the Greek order to suspend operations reached the troops only two and a half hours before an attack was scheduled to begin.

The Council also recommended that two Swedish officers be permanently assigned to the Greek and Bulgarian forces to settle any disputes between the border troops. If another dispute should arise, a neutral President was to be added, if necessary, but no trouble has occurred.

From this incident it can readily be seen that the League can be an effective force for peace. It is not necessary to go into detail regarding all the other types of activity of the League, such as the suppression of the opium trade, the treatment of women and children, the relief of distress, the protection of minorities, and the progressive codification of international law.

In the brief period in which the League has functioned since its creation in 1919 it has prevented war in several instances and alleviated international friction in many more. Through the Brussels Financial Conference it has materially assisted in the recovery of Europe. It has to some extent cared for thirty million people belonging to minor groups. It has been the direct governing force in the Saar. It has achieved very real results in certain social policies, such as the regulation of opium and drugs.

It is constantly exerting influences toward international understanding through its frequent meetings and cooperative endeavor.

It is clear that the League cannot for the present handle major conflicts between the Great Powers, but it may perhaps offer an agency through which each power may "save its face" and so avoid war. The

Tenth Assembly of the League in 1929, however, went far, since nearly all the powers promised to sign the "Optional Clause" bringing every justiciable dispute before the World Court. It must be recognized that the League is still only in its infancy and without a doubt will make progress as international understanding grows.

As the world grows smaller in point of time and in the speed and frequency of intercommunication some international agency is inevitable. The probabilities are that the world will never again, except in the event of a world conflict, be without an association of the nations.

The International Labor Organization

Another important autonomous organization associated with the League of Nations is the International Labor Organization. The War enormously increased the importance of labor and there were many who hoped to see the establishment of an international labor parliament with power to pass laws binding on national governments. Powerful employers as well as nationalistic forces were too strong for such a result, but embodied in the Treaty of Versailles was provision for a labor organization. The following nine guiding principles were laid down in the Treaty:

1. The principle that labor should not be regarded merely as a commodity or article of commerce.
2. The right of association for all lawful purposes by the employed as well as by the employers.
3. The payment to the employed of a wage adequate to maintain a reasonable standard of life as this is understood in their time and country.
4. The adoption of an eight-hour day or a forty-eight hour week as the standard to be aimed at where it has not already been attained.
5. The adoption of a weekly rest of at least twenty-four hours, which should include Sunday wherever practicable.
6. The abolition of child labor and the imposition of such limitations on the labor of young persons as shall permit the continuation of their education and assure their proper physical development.
7. The principle that men and women should receive equal remuneration for work of equal value.
8. The standard set by law in each country with respect to the conditions of labor should have due regard to the equitable economic treatment of all workers lawfully resident therein.
9. Each State should make provision for a system of inspection in which women should take part, in order to ensure the enforcement of the laws and regulations for the protection of the employed.

The International Labor Organization is to translate these principles into action through its International Labor Conference and through its office (often called the I. L. O.). Every nation which is a member of the League is *ipso facto* a member of the labor organization, but some nations who do not belong to the League have also joined.

The Conference meets once a year and to it each member nation is supposed to send four delegates, two representing the governments directly, one the workers, and one the employers. All are appointed by the governments but the employers' and workers' representatives are supposed to be appointed in consultation with the most representative employers' and workers' organization in each country.

Up to the present time no conference has had a full representation because some governments do not send any delegates or send only one or two. This is inevitable since in some countries labor unions are illegal and in others the government is opposed to those that do exist. Often, as might be expected, the employers' and workers' groups tend to oppose each other. Class solidarity is then more powerful than national solidarity. Each delegate votes individually and not as a national unit.

The chief duty of a conference is to regulate labor conditions. This is done chiefly through Conventions or treaties regulating labor or social conditions which have to be passed by a two-thirds vote. For example, at the 1919 Conference in Washington a Convention was adopted favoring the eight-hour day. This was then referred to the various countries for ratification. Some nations have not yet ratified this Convention, nevertheless it has often affected the action of their legislatures.

The Conference can also adopt "recommendations" or rules which the conference believes just; but even if a nation accepts a recommendation it is not binding, whereas if a Convention is ratified by a state, and then is violated, any member can lodge a complaint with the International Labor Office. From 1919 to 1929, the International Labor Office had registered three hundred and thirty-three ratifications of Conventions. This is about a third of the possible number.

The International Labor Office is the Secretariat of the Conference. It has a permanent staff of three hundred and fifty persons, and in 1928 spent over a million and a half dollars in its work. The chief duties of the Secretariat are to prepare for the annual Conference, to keep in contact with industrial and social organizations and with the governments who are cooperating, and finally to investigate conditions and give out information.

The Labor Office is managed by a Governing Group of twenty-four members. Twelve of these are Government delegates, eight being per-

manent, representing Belgium, Canada, France, Germany, Great Britain, India, Italy, and Japan, while four are elected by the Conference from the other countries for three year terms. Twelve others are elected by the Conference, six from the employers' delegates and six from the workers' delegates. This governing group meets every three months, elects a director, approves the budget, appoints the members of the commissions which are to assist in the work, and draws up the agenda for the Conference.

The internal organization of the Office follows the main divisions of the work already mentioned.

There is a Director, a Deputy-Director, and a personal staff whose duties are similar to those of the personal staff of the Head of a Government Department. There are three chief Divisions:

In the *Diplomatic Division* are the Governing Body and Conventions Section, the Conference Section, the Native Labor Section, and the Legal and Russian Refugee Services.

The *Intelligence and Liaison Division* comprises the Section for relations with workers' and employers' organizations and with coöperative societies, and the Section for relations with the corresponding offices and correspondents maintained by the Labor Office in the principal cities of the world; also the Library and the Press-cutting Service.

The *Research or Scientific Division* is divided into four Sections: (1) statistics and wages; (2) labor legislation; (3) intellectual workers, workers' spare time, technical instruction, protection of women and children, housing; (4) economic questions as related to social questions; and six services: unemployment, labor exchanges, and migration; social insurance; agricultural workers; industrial hygiene; prevention of industrial accidents; social organization of the Union of Socialist Soviet Republics.

A fourth Division, known as the General Organization Division, comprises two main sections: the Administrative Section, which deals with staff, supplies, financial control, internal services, the shorthand-typists department, etc.; and the *Editorial Section*, which is in itself an important publishing house, producing a large number of periodicals and single works, not only in the two official languages of the League, but also in German, and sometimes in other languages.

In the early days of the International Labor Organization a great many Conventions were adopted, but beginning in 1921 it was felt that more emphasis should be placed on securing ratification of the Conventions already drafted. Beginning in 1925, however, Conventions have again begun to be passed, although they are more carefully weighed than in the early years. Up to 1929 nine more Conventions had been passed, dealing

with such subjects as night work in bakeries, emigrants, conditions affecting seamen, health insurance, minimum wage legislation, and workmen's compensation.

The tendency seems to be for the countries surrounding Russia—such as Poland—and the nations of the Orient to be more ready to ratify than the more powerful capitalistic states. It can thus be seen that one effect of the Russian Revolution is to provide a stimulus to make the conditions of labor better in bordering countries and thus in some degree to be an insurance against the threat of revolution.

2. A PARABLE ON THE LEAGUE

The type of intelligent propaganda in favor of the League of Nations which is circulated in the United States is well illustrated by the following parable written by Charles H. Levermore, winner of the one hundred thousand dollar Bok Peace Plan.

*PARABLE OF THE RICH HOUSEHOLDER*¹⁷

World Politics and a Village Fire Department

Here we are living in a small village. This village is peculiar. It is a sort of enchanted village. We cannot get out of it. Usually, if we don't like the village wherein we live, we can leave it and settle down in another. But when we are once born into this village, there we must stay, whether we like it or not. Old men tell us there was a time when on this globe of ours there were several villages, but under the applications of steam and electricity the world has contracted in size and dwindled, until now there is no room on it for more than this one village, and the only way in which we can leave this village is by the gate of death.

Recently there has been in this village a tremendous conflagration which has burned down about a third of it, destroyed an immense amount of property, and killed a great many of the villagers. Even before the fire was more than partly under control the villagers got together and said:

"This must never happen again." They said: "We are to blame. We never had an equipment for fighting fires. We never had, in fact, any fire department that was good for much, and consequently the fire almost mastered us. Now we will have the best fire department that we can get. We will equip it with every kind of up-to-date appliances if we can get them, and we shall be ready to do better work when such a danger occurs again.

¹⁷ By Charles H. Levermore. Reprinted from the *Century Magazine*, May, 1924.

"Moreover, we want to leave this village in better shape to our children than we have ever had it. We will band ourselves together into an organization for building a better village. We will call ourselves the Village Improvement Association, and we will have that in addition to our new fire company."

Well, virtually everybody joined that association and the new fire company. All the big householders went into it but three.

There was one who was a great merchant in the village who was not asked to join. His name was Fritz, and he was not asked to join because most of the villagers thought that he had started the fire.

There was another big householder in the village who also was not invited to join. His name was Ivan, and he had the biggest farm in the village, but it was not very well cared for. The buildings were rather tumble-down. Just at the time of the fire Ivan went on a terrific spree, and when he was full of red hooch he stood out in the main highway of that burning village, and shouted hoarsely to the other villagers, "You think that is something of a fire, do you? You wait and see the fire I am going to kindle in a little while." That talk scared the villagers so much that they would not ask Ivan to join the new fire company. They thought that they would better wait until he sobered off.

But there was another big householder whom the villagers expected to be with them. They counted on him. His name was Sam. He lived at the west end of the village, just across the valley through which flows a brook. His farm was bigger than any one's except Ivan's, and it was pretty well cared for. There were very good buildings on it, and he was regarded as perhaps the most prosperous villager. In fact, one of Sam's boys attended the initial meetings of the new fire company and the Village Improvement Association, but when that boy got home Sam scolded him and spanked him and sent him to bed. The disappointment and the shock of the rebuff were so great that the poor fellow never recovered.

Sam said to the astonished villagers: "No, I am not going to join you. I don't quite like your company or your plan. I don't care to have this one and that one in your crowd able to outvote me at the meetings and tell me where I can get on and off.

"There is Louis, the caterer. He owes me a lot of money, and he is not trying to pay it, so far as I can see. He has money enough to fill his house full of guns and revolvers and ammunition, yet he is not trying to pay me a cent. Also, every time he sees Fritz, Louis has a brainstorm and tries to hit him.

"Then, there is Mr. Bull, who runs that big department store. I don't want to get tied up with Mr. Bull. He has six sons. That Bull family can outvote me at any time. It seems to me that there is too much Bull about this scheme."

The villagers said to Sam: "You are very much mistaken; at least we think you are. Those Bull boys are not going to vote as the old man says. If you think they are, you can ask his oldest boy, Patrick.

"Besides," they said, "you know those tenant farmers of yours on the south side of your farm. They have all come into the fire company and the Village Improvement Association, they don't dare to wink unless you tell them they can.

"Moreover," they said, "you have mistaken the character of our association. It is not run on military lines at all. We cannot order you to get out of bed at midnight and run down to a fire if you don't want to. This is a purely voluntary fire company. But you know perfectly well the fire is not out yet. Every time a wind of hate blows through our village, the embers glow and the sparks fly. They might just as easily fly over your buildings again as they did before, and your property might be the first to get burned the next time." Sam said, "I will have a fire company of my own." And the villagers said: "How can you have a fire company of one? Do you expect Fritz and Ivan to join with you?"

Sam mulled over that for two years, and then gave it up.

Meanwhile the villagers went to work. They organized their new fire company. They got the best machines that they could afford to buy and the best appliances available. They employed mechanics to install and man a water system that they thought would throw a stream of water over the most imperial sky-scraper in the village. They went to work also with their Village Improvement Association. They laid new sidewalks. They started a new hospital. They began to drive the drug peddlers off the streets, and they cleaned up the red-light district.

Then they laid it all before Sam, and Sam said, "No, no. You are too quarrelsome a lot for me to do anything with." "But," they said, "quarrelsome? Look at what we have done. We have had our fire company and our association only this short time, relatively speaking for only four months, and in that time we have answered fifteen alarms, and put out at least five actual fires. The last one was a very nasty fire, very nasty indeed. It started out just like the big one.

"It started in that dark alley between the premises of Tony, the macaroni manufacturer, and of Constantine, the fruit peddler. The fire company responded, and all the villagers ran in; the pinochle club and even Tammany Hall sent in contingents to help. The result was that the whole of that fire was stamped out, relatively speaking, in twenty minutes. Wasn't that pretty good work?" And Sam said, "I congratulate you on having something so helpful for you, but for me it is a closed incident."

Once more the villagers said: "Quarrelsome? See what we have done for Otto, the delicatessen dealer, who was Fritz's particular friend. He was virtually burned out in the fire. There was nothing left of his store and house but a shell. His stock was all destroyed. He and his family

were on the verge of starvation, and they thought they were facing beggary on the cold street. We chipped in. Some of us who had been for a long time Otto's enemies were the first to help. We rebuilt his store and gave him a new stock. He is now doing business again at the old place, and he and his family are happy." Sam said, "That is well done. I am willing to help on that." And he did. Then Sam unbent a little more and said: "I will tell you what I will do. I will let some of my boys come to some of your meetings, and they can sit there and take notes. They can give you advice if you wish them to, but it must be understood that they are merely unofficial observers. They cannot sign anything or commit me to anything. I am not going to be responsible for any of the expenses incurred."

Well, the villagers were glad to have help from Sam on any basis or in any manner, whatever they may have said about it among themselves. There are rumors that even some members of Sam's household wonder whether that kind of cooperation, if it is coöperation, is exactly what the richest and most prosperous and happiest householder in the village should give.

3. A BRIEF AGAINST THE LEAGUE OF NATIONS¹⁸

The description of League machinery has presented some of the favorable sides of its activity. Opposition to the League at the present time is not very vocal and the arguments used in the Senate debates of a few years ago were largely campaign documents. The following outline brief against the League embodies most of the more reasonable objections to a League of Nations and is endorsed by Senator William E. Borah.

- I. The United States should not join the League of Nations simply because of participation in some League activities, for
 - A. The Government is willing "to coöperate freely, fully and helpfully, with the League of Nations in matters of general international concern." (Secretary of State Frank B. Kellogg.)
 1. The United States actually does coöperate in such matters affecting scientific, economic and social welfare and limitation of armament.
 2. This does not mean that we should accept all obligations of the Covenant, for
 - a. The extent of American participation is bounded by the non-political character of the coöperation;
 - b. The United States pays its share of the expenses incurred by the League when it does participate; for

¹⁸ Taken by permission from *Debating for High Schools*, by R. K. Immel and R. H. Whipple. Ginn & Co., Boston, pp. 198-208.

in 1925 and 1927 the United States paid such expenses in the total amount of over \$22,000.

Eighth Yearbook of the League of Nations, p. 14.

3. So long as we can share in the work done at Geneva which is useful to us, membership should not be advocated.
4. This position is assured, for
 - a. "Not being a member of the League can in no respect deprive the United States of its legitimate place in the Society of States. It would be unendurable that the United States should be denied its rights as a member of the Society of States because it has not become a member of the League of Nations."

David Jayne Hill, *The Problem of a World Court*, xiv.

II. The League is a political institution, for

- A. It is composed of governments;
- B. The Council and Assembly which control it are political, for
 1. They are made up of the representatives of member states;
 2. These representatives are responsible to their governments;
- C. "The Covenant created a military and political alliance, primarily of the victors in the war, but soon augmented by smaller neutral powers seeking its protection, which had for its object the maintenance of the *status quo* thus imposed."

David Jayne Hill, *The Problem of a World Court*, xiii.

1. "A league of selected states that is planned to function through an executive council of strong states is essentially a coercive alliance."

George Wharton Pepper, *Journal of Comparative Legislation and International Law*, January, 1921.

2. "The League to execute the peace treaties has weakened rather than strengthened the League as a whole."

William E. Rappard, *International Relations as Viewed from Geneva*, p. 15.

III. To join the League would involve giving up the traditional American policy, for

- A. "The Monroe Doctrine, would compel us to arbitrate or submit to the Council or Assembly of the League any

question that might arise between us and a foreign country in regard to the application of that Doctrine, and all members of the League could participate in and intermeddle with its enforcement."

William D. Guthrie, *The League of Nations and Miscellaneous Addresses*, New York, Columbia University Press, 1923, p. 57

- B. "The instant that the United States, who declared, interpreted and sustained the Doctrine, ceases to be the sole judge of what it means, that instant the Monroe Doctrine ceases and disappears from history and from the face of the earth."

Henry Cabot Lodge, *The Senate and the League of Nations*, New York, Charles Scribner's Sons, 1925, p. 399.

IV. The American people are determined to maintain this policy, for

- A. Upon this "great policy of 'no entangling alliances' . . . the strength of this Republic has been founded for one hundred and fifty years."

William E. Borah, *The League of Nations*, Indianapolis, Speech delivered in the Senate of the United States, p. 14.

- B. "It is recognized that we are independent, detached, and can and do take a disinterested position in relation to international affairs."

President Coolidge, Message of December 6, 1927.

- C. "Maintaining this policy, we wish to discard the element of force and compulsion in international agreements and conduct and rely on reason and law"

President Coolidge, Memorial Day Address, May 30, 1927.

- D. This policy is not one of isolation, for

1. It is based upon retaining freedom of action and avoiding obligations "to act under circumstances quite beyond our power to foresee or control."

William D. Guthrie, *The League of Nations and Miscellaneous Addresses*, New York, Columbia University Press, 1923, p. 8.

2. "We have consistently refrained from intervening except when our help has been sought and we have felt it could be effectively given, as in the settlement of reparation and the London Conference."

President Coolidge, Annual Message, 1925, p. 10.

- E. ". . . Not a step should be taken committing or covenanting our country which shall tend toward internationalism in the

sense that its most zealous advocates seem to conceive it, or which shall tend in any degree to diminish what we cherish as nationalism or independence in contradistinction to internationalism or the interdependence of nations."

William D. Guthrie, *The League of Nations and Miscellaneous Addresses*, New York, Columbia University Press, 1923, p. 19.

V. The United States can work more effectively for peace outside the League, for

A. While many features of the League organization facilitate a satisfactory international cooperation, the real question of organizing peace is political and American independence in policy is necessary, for

1. Our constitutional system demands it;
2. The President and the Senate must agree before any permanent policy is established.

B. Our influence against war is decisive, for

1. The extent of our interests renders us extremely sensitive to the effects of any disturbance throughout the world; and, therefore,
2. "Our military power holds no threat of aggrandizement;" (but)

President Coolidge, Annual Message, December 6, 1927.

3. Our great material power is an essential factor to be reckoned with by any disturber of the peace.

C. We recognize that "we should continue to promote peace by our example, and fortify it by such international covenants against war as we are permitted under our Constitution to make."

President Coolidge, Annual Message, December 6, 1927.

D. In the Paris Pact for the renunciation of war, signed August 27, 1928, we have made such a contribution, for

1. Acting on M. Briand's original suggestion, Secretary Kellogg successfully negotiated this far-reaching treaty with 13 nations and invited 49 others to adhere to it.
2. All civilized states, "in the names of their respective peoples," are thus brought by us to
 - a. Renounce war "as an instrument of national policy in their relations with one another;" and
 - b. "Agree that the settlement or solution of all disputes or conflicts . . . which may arise among them, shall never be sought except by pacific means."

James T. Shotwell, *The Pact of Paris*, International Conciliation, No. 249.

3. "The formula and methods of the League could not be the same as those to which it has been possible for us to have recourse for such a general and absolute agreement as the pact provides."

Aristide Briand, Speech at signing of pact, August 27, 1928, *Current History*, October, 1928, p. 125.

4. Both the initiative in negotiating and the policy of this treaty are consistent with the American spirit, for
 - a. "We are a peaceful people and committed to the settling of disputes by amicable adjustment rather than by force."

President Coolidge, Annual Message, December 6, 1927.

- VI. "... It appears incontestible that the Senate of the United States refused its advice and consent to the entrance of the United States into the League of Nations, because the Covenant was designed as an instrument of power rather than an instrument of justice," for

David Jayne Hill, *The Problem of a World Court*, p. 90.

- A. The Covenant provides for enforcing peace, in

1. Art. 10, by which the Members of the League "undertake to . . . preserve as against external aggression the territorial integrity and existing political independence of all Members of the League;"
2. Art. 16, by which they undertake to sever all relations and prevent all intercourse with any Member which disregards its agreements to leave its disputes to methods of pacific settlement;
3. Art. 11, by which "the League shall take any action that may be deemed wise and effectual to safeguard the peace of nations." "For this purpose it is pledged to use its 'preponderant power.'"

- B. The attempt to enforce peace is fallacious, for

1. "The principal concern of international society is not to avoid war but to secure *justice through peace*."

Philip Marshall Brown, *International Society*, p. 99.

2. It implies maintenance of the *status quo*, thus assisting the continuance of injustice;
3. "By this treaty all 'places in the sun' now occupied by Members of the League are guaranteed to their occupants."

Edward A. Harriman, *The Constitution at the Cross-Roads*, p. 144.

4. "... The Covenant . . . would require the other Members to intervene to prevent any assistance being given to the revolutionists by a third country, as when France assisted the American colonies."
Edward A. Harriman, *The Constitution at the Cross-Roads*, p. 145.
- C. There is no guaranty that the action of the League will be based on law and justice, for
 1. No adequate criteria exist defining the conditions under which resort to force would occur;
 2. No rules of international law assure that application of these articles would be solely for the attainment of justice.
 3. "It will not do for the possessing nations to say we will enforce peace without law."
David Jayne Hill, *American World Policies*, p. 49.
 4. "The League of Nations is a bold enunciation of the principle that neutrality is no longer permissible. Nations are challenged to take sides in case a nation places itself outside of court."
Philip Marshall Brown, *International Realities*, p. 109;
David Jayne Hill, *American World Policies*, p. 166;
Edward A. Harriman, *The Constitution at the Cross-Roads*, (New York, George N. Doran Company, 1925), p. 151.
- D. These provisions are unnecessary, for
 1. "It is reasonably certain that no power will dare in the future to affront the conscience of the world by repudiating or violating the established principles and rules of international law. And no League of Nations with a military force at its command can make this any more manifest."
William D. Guthrie, *The League of Nations and Miscellaneous Addresses*, New York, Columbia University Press, 1923, p. 9.
 2. "... The truth is that . . . treaty obligations are more sacred and binding than they ever were, and that we Americans can safely continue to rely upon their effectiveness in our dealings and intercourse with other civilized nations."
William D. Guthrie, *The League of Nations and Mis-*

cellaneous Addresses, New York, Columbia University Press, 1923, p. 11-13.

E. Even if these provisions were desirable, the United States could not accept them, for

1. "If the United States assumes treaty obligations which contemplate force for their execution or performance, there is the danger that the President without consulting Congress may take action which will irrevocably commit the Nation to war and all its incalculable consequences."

William D. Guthrie, *The League of Nations and Miscellaneous Addresses*, New York, Columbia University Press, 1923, p. 91.

2. "The powers of the American Government are delegated powers . . . There is in the Constitution of the United States no delegation of power to any organ of Government to declare and carry on war, levy taxes, and impose compulsory military service upon the people, or to engage to do so, for the purpose of guaranteeing the peace of Europe, or of preserving the territorial integrity and political independence of all the signatories of the Covenant of the League."

David Jayne Hill, *The Problem of a World Court*, xv.

3. "They could not even be transferred by the Congress to the President, nor could he be authorized to act automatically in a military way in contingent circumstances, under Articles 10, 11 and 16."

David Jayne Hill, *The Problem of a World Court*, xv.

VII. The independent position of the United States is advantageous both for itself and for the League, for

A. Faults in the fundamental structure of the League have been more clearly perceived as a result of the attitude of the United States, for

1. Effort has been made to interpret Art. 10 so as to make its application dependent solely on the judgment of the Member states.
2. Art. 16 has been amended and interpretations of it have clarified its meaning.
3. The fact that the United States was not participating affected the decision to give up the Geneva Protocol.

Sixth Yearbook of the League of Nations, p. 174.

- B. The League has been put on its mettle by the absence of the United States, for
 - 1. It has sought to push solution of the opium problem to gain our full coöperation;
 - 2. It regularly includes Americans in its committees or invites the Government to associate itself with new phases of its work;
 - 3. It makes use of all obtainable information from the United States, as, for instance, that contained in the Armaments Year Book and the Memorandum on Public Finance.
 - C. The United States finds it useful to use the League to get results which it desires, for
 - 1. It is easier to meet representatives of the Member states at Geneva than elsewhere;
 - 2. Their maturing of their views by means of their own mechanism there facilitates agreement with us, as in the case of the Conference on Double Taxation.
 - 3. Convening the Three-Power Naval Conference at Geneva enabled it to benefit from the experience gained by the Preparatory Commission for the Disarmament Conference and to use the Secretariat.
- VIII. The United States should not become a Member of the League, for
- A. Our position as a nonmember renders us more influential, for
 - 1. As a member we would be under obligation to compromise our views on all League business so as not to appear obstructive; while
 - 2. As a nonmember we can select those activities in which we choose to participate.
 - B. We should have to submit to the rule of unanimity, for
 - 1. All important decisions in the League are taken by unanimous vote; and
 - 2. We should either be obliged to accept decisions only partially satisfactory or bear the whole responsibility for defeating the will of other states or abstain from voting entirely.
 - 3. We found in the case of the Paris Pact that completing negotiations with a limited number of nations and then inviting all the others to adhere to the decision taken was the most expeditious way of securing international action.
 - C. The United States has preferred to conduct its foreign relations on the basis of bilateral treaties with particular states

rather than on that of multilateral treaties with many states, many of which are only slightly interested in the subject matter, for

1. The bilateral system makes for simplicity of relations;
 2. For definiteness of engagements;
 3. For careful adjustment of the agreement to the problem at issue.
- D. We should have to be represented in the Assembly and Council, for
1. All Members of the League are represented in the Assembly, but
 - a. In it we should have to deal with many things which do not particularly concern us or do not concern us at all;
 - b. Speeches on international relations result in the national policies of particular countries being discussed there;
 - c. We should have to vote on matters of purely European interest.
 2. A seat on the Council is reserved for us, for
 - a. The Covenant so provides; but
 - b. Washington is too far from Geneva to permit the Secretary of State to attend sessions of the Council as other foreign ministers do.
 - c. Consequently our membership would not be on a par with that of other great states.

III. INTERNATIONAL ARBITRATION AND THE "WORLD COURT"¹⁹

Any one surveying the history of international arbitration and the difficulties which have stood in the way of an obligatory or regularized submission of international controversies to judicial settlement may justifiably ask why so eminently sane a procedure should have been hampered by the opposition of governments. The answer is not altogether easy, yet it yields partially to a considered investigation. It will be attempted in this paper to point out the position of arbitration in the twentieth century, why it has advanced to its present stage, the obstacles in the way of its progress, and the present prospects. Special reference will be made to the position of the United States. The place and work of the Permanent Court of International Justice (the so-called "World Court") will also be examined.

¹⁹ By Edwin Borchard, Yale University.

History

1794, the date of the Jay Treaty, marks the beginning of the modern period of international arbitration. It is evident that arbitration has since that time been accepted among the nations of the world as one of the normal methods of settling international disputes. It is not without significance that the United States and Great Britain, two rapidly expanding nations, have in that period participated in as many arbitrations as the rest of the world combined. Other nations have also submitted many and important questions and it cannot be doubted that the institution has been successful. With the increase in commerce and intercourse which has marked the nineteenth and twentieth centuries, the number and diversification of disputes has naturally increased, and arbitration, having proved its utility, has been frequently resorted to. Probably the majority of the cases have involved pecuniary claims, boundary disputes, and jurisdictional questions.

The Hague Convention

The movement toward a more formal world organization led in 1899 to the calling of the First Hague Conference and the signature of the Convention for the Pacific Settlement of International Disputes. This Convention marked then, as it does now, the highest achievement for the regularized submission of international disputes to arbitration. The distinguishing features of that Convention are, aside from the procedure for mediation and commissions of inquiry, that arbitration is voluntary, and that the court consists of a panel of judges, over 100 in number, which the litigants may draw upon to recruit the court *ad hoc*. The Convention also provided a regular method of procedure which has served as a model for numerous other cases settled outside The Hague. To the Permanent Court of Arbitration at The Hague thus established, the United States has submitted four important cases, the Pious Fund case, the Orinoco Steamship case, the North Atlantic Fisheries case, and the Norwegian Ship requisition case.

The Treaties of 1905

The development at The Hague stimulated national movements to extend the scope of arbitration and make it obligatory. It has been said that certain powers frustrated the effort in 1899 at The Hague to make arbitration obligatory then. Nothing, however, is more erroneous than to assume that any of the great powers were prepared then or at any time since to submit all their disputes to obligatory arbitration, and the open avowal of some nations that they were opposed to obligatory arbitration of all disputes merely reflected the attitude entertained by all of the great powers. Nevertheless, a strong opinion in the United States,

vaguely aspiring to advance the cause of international peace, brought about in 1905 the executive conclusion with seven powers of treaties based upon the model of the Franco-British Treaty of 1903. It is worth presenting the exact wording of these treaties, in order to determine whether they mark an advance over The Hague Convention of 1899. The treaties provide:

"Differences which may arise of a legal nature, or relating to the interpretation of treaties existing between the two Contracting Parties, and which it may not have been possible to settle by diplomacy, shall be referred to the Permanent Court of Arbitration established at the The Hague by the Convention of the 29th of July, 1899, provided, nevertheless, that they do not affect the vital interests, the independence, or the honor of the two Contracting States, and do not concern the interest of third Parties."

Effect

These treaties mark a turning point in the American attitude toward arbitration, and not necessarily one of progress. Though the language of the treaties is apparently broad enough in character, providing for the submission of "differences which may arise of a legal nature, or relating to the interpretation of treaties," the treaties nevertheless except from this obligation all questions which "affect the vital interests, the independence, or the honor of the two Contracting States, and do not concern the interests of third parties."

Limitations on Arbitration

It will be observed in the first place that the submission is restricted to questions of a *legal* nature or relating to the interpretation of treaties, a classification which led to a long intellectual debate as to the difference between legal and political questions. In the second place, it excepted from the obligation to submit even this limited class of cases, those affecting the "vital interests," the "independence," or the "honor" of the contracting states, or the "interests" of third powers. No such exceptions are to be found in the Hague Convention for the Pacific Settlement of International Disputes of 1899, so that instead of indicating a desire to enlarge the scope of arbitration, it marks in fact a restriction. This is particularly noticeable in the case of the United States and Great Britain, which had in the past submitted to arbitration such important cases as the Alabama claims and the Venezuelan boundary dispute, both of which were highly political in character. Great Britain had at first declined to submit the Alabama case to arbitration, on the ground that it involved the "honor" of Her Majesty's Government, and likewise demurred to the submission of the Venezuelan question on the ground that it was "polit-

ical," a ground which has often induced the American courts to decline to exercise jurisdiction over litigated cases. Thus, the proposed treaties of 1905 expressly excepted from the obligation to arbitrate, issues which had in the past actually been submitted to arbitration, and narrowed the scope of the submission beyond The Hague form of 1899 which, while not making arbitration obligatory, at least exempted nothing.

It will not escape notice that the words "vital interests, independence, or honor," the existence of which are left to the determination of each litigating nation, are broad enough, by including everything that is really important, to enable any question to be kept from arbitration, no matter how legal it may seem or how directly it involves the interpretation of a treaty. Whether the exclusion of "domestic" questions which in the more recent treaties concluded by Secretary of State Kellogg limits the scope of the exceptions to arbitration, remains to be seen.

Senate

Moreover, the submission of the treaties to the Senate disclosed another objection which had not theretofore been revealed. The Senate, instead of accepting the treaties as they stood, with their very limited scope, expressed its determination not to have any particular question submitted without special Senate consent. Though President Roosevelt threatened not to present the treaties to the other contracting parties if the Senate Amendment were adopted, it was nevertheless adopted. The President kept the treaties uncommunicated for three years; in 1908, however, the clamor that he do something not having died down, he presented the treaties, through Secretary of State Root, including the Amendment that no case could be submitted except with express Senate approval. The treaties ran for five years and have been renewed. Among the cases which have been submitted to arbitration, ostensibly in pursuance of these particular treaties, are the Fisheries Arbitration with Great Britain (1910) and the Palmas Island Arbitration with the Netherlands (1926).

Scope of Arbitration

Several comments seem justified. An agreement to submit to arbitration everything but questions that are important can hardly be deemed to advance the cause of arbitration. It pays lip-service to arbitration, while taking from it much of its essence. Possibly it has some popular psychological value in stimulating thoughts of arbitration; if so, such treaties may have justification. Arbitration has been practiced and will continue to be because nations find it more profitable or expedient to adjust pending issues by that method than by any other. The realization of the cost of violent methods will doubtless induce a continued recourse to arbitration

in the future. But it cannot be overlooked that important questions, the questions that are most likely to cause war, are not being submitted with any greater frequency or eagerness than heretofore. Though the abortive Geneva Protocol and the Locarno Treaties may evidence some intention not to permit European questions to result in war if arbitration can avoid it, it is still uncertain whether the cultural tradition of arbitration is growing.

Arbitration Made Difficult

So far as the United States is concerned, the Senate Amendments make arbitration for the United States more difficult than it was before 1908. Many of our most important arbitrations had been submitted to an international tribunal or mixed commission by mere executive agreement. Only when arbitration seemed likely to make the United States responsible for money damages, or to result in a diminution of sovereignty, had it been customary to request Senate "advice and consent." Now it seems the Senate intends to check the Executive in the conclusion of arbitration agreements by requiring Senate approval of each case to be submitted, whether the United States is the complainant or the defendant. An exception may be found in the Agreement of August 10, 1922, submitting to arbitration the claims of American citizens against Germany under the Treaty of Berlin. That this indicates a definite recession by the Senate from its previous attitude, it may be hazardous to assume.

The Court with Fixed Personnel

In the meantime, Secretary of State Root had instructed the American delegates to the Second Hague Conference of 1907 to endeavor to bring about the establishment of a fixed court, with judges in continuous session, instead of the ephemeral tribunal convened *ad hoc* from the panel of judges known as the Permanent Court of Arbitration, and continued with minor changes by the Conference of 1907. Mr. Root predicated his instruction upon the thesis that the "principal objection to arbitration rests not upon the unwillingness of nations to submit their controversies to impartial arbitration, but upon an apprehension that the arbitrations to which they submit may not be impartial." He assumed that arbitrators act not under a sense of judicial responsibility, as impartial judges deciding according to law, but as "negotiators effecting settlements of the questions brought before them in accordance with the traditions and usages and subject to all the considerations and influences which affect diplomatic agents"—the method of compromise, as it has been called. He then assumed that nations would be "much more ready to submit their controversies" to a regular court of fixed judges deciding according to legal principles.

The Alleged Element of "Compromise"

In spite of the distinguished name which these suggestions bear, it may be doubted (1) whether arbitration results in compromise and in the process of diplomatic negotiation and not in a decision according to law, and (2) whether nations are more willing to submit to a court with a fixed personnel than to a tribunal in the composition and selection of the personnel of which they had some choice. As to the first point, an examination of the six volumes of Moore's Digest of International Arbitrations discloses that arbitrators have not been in the habit of regarding their mandate as one of "compromise," but that on the contrary their decisions have to a remarkable degree been actuated by considerations of the same type which govern the highest municipal courts. Article 15 of the Hague Convention for the Pacific Settlement of International Disputes reads: "International arbitration has for its object the settlement of differences between States by judges of their own choice and on the basis of respect for law." Impartiality, an endeavor to interpret or find legal principles and rules, the guide of precedents, mark the deliberations and decisions in practically all the important arbitrations. If national judges occasionally lean toward sympathy to their own nation, this is not true of umpires and neutral commissioners. Indeed, it is not improbable that the cause of arbitration has been unnecessarily harmed and injured by the frequent reiteration during the past twenty years of the allegation that arbitration was not a strictly judicial process and was governed by considerations that an international tribunal with a fixed personnel would escape or avoid. No one has been more insistent on the essential error of this assumption of the inferiority or weakness of arbitration than John Bassett Moore, our most profound and informed student of international arbitration and until recently a judge of the Permanent Court of International Justice at The Hague. Justice never works automatically, for it uses human instrumentalities. Those instrumentalities, whether on municipal courts or international courts, are influenced by a variety of considerations, some of which defy analysis. That the element of compromise plays some part in the application of legal principles to facts need also not be denied, but this is believed to be as important a factor in municipal litigations as it is in international arbitration.

The 1907 "Court of Arbitral Justice"

Mr. Root's proposal of a court received the name of the Court of Arbitral Justice. It was never established because the assembled nations at The Hague could not agree on a system of electing a small number of judges from so many states. It is one of the achievements of the Committee of Jurists which was appointed by the Council of the League of

Nations in 1920 to draft a statute of a Permanent Court of International Justice that they did find a satisfactory method, by election of Council and Assembly, of overcoming this obstacle. An International Prize Court, the need of which was never more convincingly demonstrated than by the prize practice during the last war, was provided for by the Second Hague Conference in 1907, but was never brought into being because the Declaration of London, which was to embody the maritime law for the court, was not ratified by the signatory governments.

The Taft-Knox Treaties of 1911

In 1911 a renewed effort was made to remove some of the limitations on arbitration, by the conclusion of agreements between the United States and Great Britain, and the United States and France. These are known as the Taft-Knox Treaties. They required the submission to arbitration of all disputes "justiciable in their nature by reason of being susceptible of decision by the application of the principles of law or equity." The question whether a particular dispute was "justiciable" was to be left to the determination of a Joint High Commission of Inquiry, which had to be unanimous, or at most lack one of unanimity for an affirmative conclusion. Each question to be submitted was to be subject to a "special agreement" requiring Senate approval, and the British Government reserved the consent of any self-governing dominion if the matter affected the interests of such dominion. This British reservation may here be noted in connection with the Senate reservation to the protocol adhering to the World Court, presently to be discussed.

Attitude of the Senate

Even these limitations were insufficient for the Senate. Not only was it made absolutely certain that a "special agreement" to arbitrate required Senate "advice and consent," but the provision leaving to the Joint High Commission the determination of the question whether a particular dispute was "justiciable" was rejected. In addition, a proviso was added that seems to have become a part of American policy, for it is reiterated on every conceivable occasion. The proviso reads:

Provided, That the Senate advises and consents to the ratification of the said treaty with the understanding, to be made part of such ratification, that the treaty does not authorize the submission to arbitration of any question which affects the admission of aliens into the United States, or the admission of aliens to the educational institutions of the several States, or the territorial integrity of the several States or of the United States, or concerning the question of the alleged indebtedness or monied obligation of any State of the United States, or any question which depends upon or involves the maintenance

of the traditional attitude of the United States concerning American questions, commonly described as the Monroe Doctrine, or other purely governmental policy.

The proposed French and British treaties were so crippled by these reservations, notably by the one providing for a method of determining independently whether a dispute was "justiciable," that the treaties were abandoned by the President.

The "Bryan Peace Treaties"—The Commission of Inquiry

In 1913, the so-called Bryan Peace Treaties were submitted to the peoples of the world as an assured method of preventing war. They were founded on the principle that in the event of any dispute arising between two nations, a commission of inquiry consisting of five members would be convoked which would investigate the issue and report within one year. During that period no change in military or naval preparations of the participating nations was to occur, and war was not to be declared or hostilities begun. The underlying theory involved the belief that during the period of investigation, whatever the nature of the final report of the Commission, popular passions would have cooled, and a method of adjustment designed to avoid war would have been suggested and found. Some thirty of such treaties have been concluded by the United States, and though they have not been invoked to any extent, they may have served a useful purpose nevertheless. A Commission of Inquiry rendered valuable service in the Dogger Bank incident between Great Britain and Russia in 1905, when a Russian Admiral fired on English fishing boats in the belief that they were Japanese destroyers. In 1914, the mediation of Argentina, Brazil and Chile was usefully employed by the United States and Mexico in an effort to settle the Mexican difficulties arising out of the occupation of Vera Cruz by the United States. It may be noted, however, that the incident of an alleged insult to the American flag at Tampico, which gave rise to the hostilities at Vera Cruz, was of the very type contemplated by the so-called Bryan Peace Treaties; no investigating commission was even suggested by the United States, though the alleged facts, and particularly their gravity, were seriously disputed by the Mexican authorities. It may be said that, though the Bryan treaties, by their inclusiveness of subject matter, were hailed as a marked step in advance and by Mr. Bryan as an insurance against war, their application is at best limited to particular incidents of disputed facts which are susceptible of investigation and clarification, but hardly would apply to continuing wrongs or differences of opinion in which each party, with full knowledge of and agreement upon all the facts, insists upon the correctness of its view. The treaties, moreover, while providing for investigation, do not commit the nations to arbitrate or to take any other par-

ticular action. They rest on the assumption that the year's interval between submission and report will suffice to prevent hostilities and that the lapse of time together with the Commission's report will point the way to adjustment.

The War

The fragility of all rational institutions for the preservation of peace was demonstrated by the outbreak of the great European War of 1914. Apparently oblivious to the forces and factors making war ultimately inevitable in that continent, arbitration had been discussed and promoted since 1899 with a fervor theretofore unknown. It cannot legitimately be asserted that arbitration agreements are futile or are to be discouraged or that the preservation of peace by agreement is an idle effort. Quite the contrary. But the fact that one of the greatest wars of history interrupted an important movement for international cooperation, with growing reliance on arbitration as a method, must give pause to those who profess to find in judicial machinery alone a safeguard against war. It would indicate that some factors must have been overlooked before 1914, and in a later part of this chapter I shall venture to suggest some of the essential factors of the problem which deserve more concentrated attention. Nor has the cause of a rational solution of international difficulties been aided by the fantastic and often spurious motives assigned to one or other of the belligerents in the late war, or by the endeavor to find in the struggle a great moral issue on which civilization depended. These justifications for uncontrolled passion and ardent devotion to one cause or the other in a war are likely to evaporate before the dissolving effects of time, investigation, and reflection; but they indicate how unstable is the human mind in the face of such emotions as military patriotism and nationalism. They indicate that statesmen who reserve from arbitration questions involving national honor, independence, vital interests and domestic questions, may know the effects of these emotions better than some of the people themselves. The fact that so many of the gladiators for arbitration were in 1914-1918 among the most violent of the militarists and among the strongest opponents of mediation and reconciliation must give pause to those who place their faith unalterably in judicial machinery.

The Treaty of Versailles

At the end of the war came the Treaty of Versailles and its counterparts, instruments which, to say the least, have placed Europe in as unenviable a state of uncertainty as have any other European treaties that preceded them. It was a severe handicap for the League of Nations to start under such auspices, and whether it will survive the consequences of Versailles is doubted by some. It is to be hoped that it will, and that it

represents a step in international coöperation which may grow stronger with the passage of time and with the friendly adjustment of the difficulties inevitably growing out of Versailles and the rearrangement of Europe.

The Covenant and the so-called "World Court"

The Covenant had provided for a Permanent Court of International Justice, the plans for which were to be formulated by the Council and submitted to the member nations for adoption. The Council invited a Commission of Jurists to meet at The Hague, which, after deliberation, proposed a statute, a protocol for which was to be signed by the member nations. The principal feature of this Court, as proposed by the Commission of Jurists, lay in the method of electing judges—by the Council and Assembly of the League on the nomination of the national groups represented in the Permanent Court of Arbitration—and in the provision for compulsory jurisdiction over legal issues. The latter was definitely a great step in advance and justified the fixed personnel of eleven judges with four deputies, which the Commission provided for. Where jurisdiction is compulsory and an unwilling defendant can be haled into court, no objection can be raised to a fixed personnel. But the Council, on receiving the report of the Commission, made a radical change in the proposal. On the ground that the Covenant did not authorize the Commission to confer compulsory jurisdiction on the Court, this provision was struck out, and the article for compulsory jurisdiction was left as an "optional" clause, which nations might adhere to if they chose. Fortunately, some twenty-two of the smaller states have signed and ratified this clause, though cases under it have not yet arisen. Among the larger Powers, Germany has ratified the clause, and in the 1929 session of the Assembly Great Britain,²⁰ France and Italy announced their intention to sign it. If these countries ratify, it will mark a notable advance in obligatory jurisdiction over legal disputes.

The Court and Advisory Opinions

Though the Statute did not provide for giving advisory opinions, Article 14 of the Covenant does provide for them, and the Court has deemed that it had the privilege and power though not the duty to render such opinions in a given case. The advisory opinion as a function of the Court was opposed by Mr. Root and others as not judicial in character, for the opinion, given to the Council or Assembly only, is not binding on any one and is recommendatory only. In a long memorandum, printed in the Congressional Record of January 4, 1926, but dated 1922, John Bassett Moore has taken somewhat the same position. If the Court were compelled to give advisory opinions, it was believed

²⁰ Great Britain has since ratified with reservations.

that it would take from the Court its judicial independence and convert it to that extent into the office of an Attorney General to the League of Nations. In fact, the advisory opinion has proved a most active function of the Court, and since the Court is privileged under its own rules to decline to render such opinion, it probably constitutes no danger to the Court or to its judicial independence. The Court has rendered some sixteen advisory opinions, and fifteen decisions in litigated cases. They will be summarized presently.

The Court's Jurisdiction

The Permanent Court of International Justice had a historical background of some importance. Experience, therefore, was a guide to the Committee of Jurists. They realized that a court was in the present stage of international development generally regarded as limited in its powers to the solution of certain types of questions, which in the absence of a better name are denominated "legal," that is, capable of solution by the application of "legal" principles. . . .

The "Optional Clause"

To enable the compulsory feature of the Court's jurisdiction to be availed of by states willing to be arraigned unilaterally on the demand of another state, the Court's obligatory jurisdiction, which states could agree upon by signing a special clause, was deemed to embrace questions involving (a) the interpretation of a treaty; (b) any question of international law; (c) the existence of any facts which, if established, would constitute a breach of an international obligation; (d) the nature or extent of the reparation to be made for the breach of an international obligation.

It was further provided that the declaration accepting the compulsory jurisdiction might be made unconditionally or on condition of reciprocity or for a certain time only. As already observed, a considerable number of states have ratified the "optional clause."

Decisions of the Court

The litigated cases, resulting in a judgment, which have come before the Court thus far have been as follows:

1. The case of the S.S. Wimbledon between Great Britain, France, Italy and Japan on the one hand, and Germany on the other. Inasmuch as there is no German on the Court, Germany had the privilege of appointing a judge to sit with the Court in this case. The Court held that Article 380 of the Treaty of Versailles forbade Germany's applying to

the Kiel Canal a neutrality order which would close the canal to a British-owned French chartered vessel carrying munitions to Danzig for transshipment to Poland during the war between Poland and Russia. The issue involved the question as to what was meant by the neutralization of the Kiel Canal. It was held not to involve a prohibition of the transport of war vessels or munitions of war of belligerent powers when Germany is neutral.

2. The Mavromattis Palestine Concessions, in which a Greek subject, through the Greek Government, brought suit against Great Britain, alleging a violation of the Greek's pre-war concessions in Palestine. The plaintiff invoked an obligatory jurisdictional clause under the mandate and was sustained by the Court.

The fourth judgment of the Court involved the decision of the Mavromattis case on its merits, the Court holding that the British Government as mandatory had bound itself to respect certain concessions in Palestine, but that as in fact the new concessions which had been granted did not result in any loss to the original concessionaire, no liability was imposed. On the question of original jurisdiction there was a strong dissent of five judges.

Decisions 3 and 5 involved the interpretation of the reparation clauses of the Treaty of Neuilly between the Allied Powers and Bulgaria. The Court held (1) that the treaty did authorize certain classes of claims against Bulgaria for damages to person and property. The second judgment involved a demand for an interpretation of the earlier one under Art. 60 of the Court's statute. The Court declined to interpret its earlier judgment where the request went beyond the limits of the judgment itself.

The sixth and seventh judgments involved German claims against Poland, arising out of an alleged violation of property rights of German subjects in Upper Silesia. The Court first held that they had jurisdiction over the case, notwithstanding Poland's objection, and then decided the case on the merits.

8. The eighth judgment of the court involved again the claims of the German government against Poland for the seizure of its citizens' property in Upper Silesia. The court affirmed its jurisdiction of the case. The court also ruled that admissions and proposals made during negotiations to settle the matter would not be considered, then reserved the case to be heard on its merits (see Judgment 13). It was a ten to three decision.

9. The ninth judgment, the Lotus case, involved the criminal jurisdiction of Turkish courts over an officer of a French vessel which sank a Turkish vessel outside Turkish waters. France claimed that the law of the flag gave France exclusive jurisdiction, but the court held that

there was concurrent jurisdiction and so gave judgment for Turkey. The court decided seven to five, though the record shows an even division of the judges. Judge Moore's so-called "dissenting" opinion actually concurs with the court's conclusion, but emphasizes the grounds of the decision.

10. The tenth judgment of the court involved again the Mavromattis Concessions in Palestine. Greece claimed damages for her subject for the delay in approving the concession. Great Britain set up the defense of jurisdiction, and the court held that it had no jurisdiction to settle matters between an individual and a state, as its jurisdiction arose under Article 11 of the mandate and that extends only to a breach of the international obligations. It was a four to three decision.

11. In the eleventh judgment Germany asked for an interpretation of judgments five, seven and eight, claiming also that there was a dispute with Poland. Poland claimed there was no dispute and defended on the ground of the court's jurisdiction under Article 60 of the Statute. The interpretation was given by a vote of eight to three.

12. The twelfth judgment concerns an interpretation of the articles in the German-Polish convention of May 15, 1922, and the rights of minority schools in Upper Silesia. As Poland made no preliminary objection to the jurisdiction, but waited until Germany had asked for a decision on the merits, the court retained jurisdiction and rendered judgment for Germany on the merits. Four judges dissented on the question of the court's jurisdiction.

13. The thirteenth judgment involved the nature of the reparation to be made by Poland to Germany for the seizure of the factories at Chorzow. The court took jurisdiction, held Article 256 of the Treaty of Versailles not applicable, then referred the assessment of damages to a committee of experts, but closed the case on advice that the two governments had made a settlement of the case. The court overruled again the Polish objection to jurisdiction, deeming it *res adjudicata*. The vote was nine to three.

14. This case between France and the Kingdom of Serbia involved the rights of French bondholders to insist upon payment from the Serbian government of certain bonds and coupons expressed in French francs, in gold currency rather than in French paper money, and involved also the court's jurisdiction to consider the case. The court rendered judgment for France, nine to three, holding that gold francs were intended by the contract. Jurisdiction was derived under Article 38 of the Statute because it had become the subject of diplomatic dispute between the countries.

15. The fifteenth judgment involved a similar issue between France, appearing on behalf of French bondholders, and Brazil, and was decided the same way as the Serbian case.

Advisory Opinions

The advisory function has thus far been invoked by the Council only, in the following questions submitted for opinions:

1. "Was the workers' delegate for the Netherlands to the third session of the International Labor Conference nominated in accordance with the provisions of Paragraph 3 of Article 289 of the Treaty of Versailles?" The Court answered in the affirmative, stating that the Netherlands' representative was not bound to consult the largest employers' or workers' organization in selecting its delegates to the International Labor Conference.

2. "Does the competence of the International Labor Organization extend to the international regulation of the conditions of labor of persons employed in agriculture?" The Court said, Yes.

3. "Does the examination of proposals for the organization and development of methods of agricultural developments and of other questions of like nature fall within the competence of the International Labor Organization?" The Court said that it did, but only in so far as conditions of labor are concerned.

4. "Is or is not the dispute between France and Great Britain as to the nationality decrees issued in Tunis and Morocco (French zone) on November 8, 1921, and their application to British subjects, by international law solely a matter of domestic jurisdiction?" The Court said that it was not by international law solely a matter of domestic jurisdiction, though nationality is a matter which generally does fall within a state's domestic jurisdiction. It is to be observed that France and Great Britain submitted this question after a prior *compromise* between themselves, through the Council of the League.

5. "Do Articles 10 and 11 of the Treaty of Peace between Finland and Russia, signed at Dorpat on October 14, 1920, and the annexed Declaration of the Russian Delegation regarding the autonomy of Eastern Carelia constitute engagements of an international character which place Russia under an obligation to Finland as to the carrying out of the provisions contained therein?" The Court refused to give the opinion, by a vote of 7 to 4, on the ground that Russia had not consented to the submission of this dispute to the court. This question and the history connected with it had an important bearing in the debates in the United States Senate.

6. The sixth question was whether Poland's refusal to recognize certain contracts and leases made by German colonists in Upper Silesia constituted a breach by Poland of its international obligation under the Polish Minorities Treaty. The Court said, Yes.

7. The seventh question involved the acquisition of Polish nationality by German settlers, and involved the question whether the League was

competent under the Polish Minorities Treaty to determine such issues, and what was the proper interpretation of Article 4 of that Treaty. The Court was of the opinion that the Council of the League was competent to deal with questions as to the acquisition of Polish nationality by German settlers, and that Article 4 made habitual residence of parents at the date of the birth of settlers concerned a condition of acquiring nationality.

8. The eighth question was whether the Jaworzina boundary dispute between Poland and Czechoslovakia had been finally determined by the Conference of Ambassadors, or was still open. The Court ruled that it had been finally determined.

9. The ninth question was whether the Conference of Ambassadors had exhausted their powers under a resolution of the Assembly with respect to the delimitation of the Albanian frontier between Albania and Yugoslavia, and particularly with respect to the allocation of the Monastery of Saint-Naoum. The Court answered in the affirmative.

10. The tenth question involved the matter of the exchange of Greek and Turkish populations under the Treaty of Lausanne, and the particular question whether a Greek established in Constantinople could be exchanged and what was meant by "established." The Court defined the term by holding that the Greek must have resided in Constantinople prior to October 30, 1918, with an intention to remain there.

11. The eleventh opinion involved the question whether the Polish Government was entitled under the peace treaties to maintain a postal service in the port of Danzig not restricted to a single office. The Danzig authorities contended they were so restricted. The Court decided in favor of Poland.

12. The twelfth advisory opinion was requested by the Council in connection with the delimitation of the frontier between Turkey and Iraq (the Mosul question). The Court was asked whether the decision of the Council under Article 3 of the Treaty of Lausanne was an arbitral award, a recommendation, or merely mediation, and whether the decision had to be unanimous. The Court held that the decision of the Council was binding and had to be unanimous, excepting from vote the parties to the dispute, namely, Great Britain and Turkey. . . .

13. The thirteenth opinion involved the question whether the International Labor Organization could also regulate, incidentally to the regulation of labor, the personal work of small employers, such as barbers. The Court held that it could, if the regulation were incidental, and that the Labor Organization had certain discretionary powers not, however, "unlimited."

14. The fourteenth advisory opinion involved the powers of the European Commission of the Danube. The Court held that the Commission had the same powers in the Galatz to Braila sector as they did below that sector, and that the upstream limit was immediately above the port of Braila.

Also, that the powers of the Commission extended over the whole of the maritime Danube, and were not excluded from any zones territorially defined and corresponding to harbor zones, thus overruling the Rumanian contention that Rumania had exclusive powers in certain zones. The decision was nine to one.

15. The fifteenth opinion involved the rights and obligations of Poland and the Free City of Danzig in the administration of the railways, and the Court held that the Danzig courts had jurisdiction of individual claims against the Polish Administration of the railways, and that the decision of the High Commissioner holding that the Danzig courts had no jurisdiction was not legally well founded. The opinion was unanimous.

16. The sixteenth opinion involved the question whether Greece or Turkey, as individual states, could refer such disputes as arose within the Mixed Commission for the Exchange of Greek and Turkish Population to an arbitrator, or whether they were to be finally determined by the commission. The Court decided unanimously that they were wholly for the Commission to settle.

The United States' Adhesion to the Protocol

Agitation for a great international tribunal, a "world court," had been carried on in the United States for many years prior to 1914. The Court of Arbitral Justice, the draft of which was evolved at the Hague Convention of 1907, but which never came into being, was the nearest approach to such a court. When, therefore, the Statute of the Permanent Court of International Justice had been drafted and adopted by the Council and Assembly, a considerable movement arose in the United States for the adherence of the United States to the protocol. The intimate association of the Court with the League of Nations, and the ardent advocacy of the Court by the protagonists of the League, tended to prejudice some of our leading statesmen against the Court. It was argued, however, that inasmuch as the jurisdiction of the Court was not obligatory, and inasmuch as the United States was privileged to submit or not to submit any dispute to which it was a party, that there was no danger to the United States from the Court's association with the League, and that any danger there might be could be averted by adequate reservations. Presidents Harding and Coolidge supported the adherence of the United States, with a variety of limitations and reservations, and on January 27, 1926, the United States Senate voted adherence by a majority of 76 to 17 in a Resolution containing five reservations and two incidental resolutions.

The Senate Reservations

Of the reservations made by the United States Senate only the second part of the Fifth presented any difficulty to the members of the League.

That reservation provided that the Court "shall not, without the consent of the United States, entertain any request for an advisory opinion touching any dispute or question in which the United States *has or claims* an interest." After five states had accepted the Senate reservations, a conference of the Powers was called at Geneva in September, 1926, to bring about a united position on the Senate's proposals. The conference accepted most of the reservations but could not agree to the Fifth, and thus the matter remained in deadlock until February, 1929, when Senator Root, as a member of the Committee of Jurists of 1920, submitted proposals for bridging the differences. These proposals offer a compromise by providing that, whenever a request for advisory opinion is to be made by the Council of the League on the Court, the United States is to be at once notified and given opportunity to express its objection. The Council, however, has the privilege of overruling the objection and submitting the question notwithstanding, in which event the United States has the privilege of withdrawing from the Court. In support of the acceptance of this proposal by the Senate, it is argued that, in practice, the Council would never submit a question over the objection of the United States. The administration supports American adherence on the basis of the proposals of Mr. Root. Whether the Senate will accept them remains to be seen.

Recent Position Toward Arbitration

Under the Treaty of Versailles, numerous arbitrations have been held between the individual Allied Powers on the one hand and Germany, Austria or Hungary on the other. The principal matters arbitrated before these so-called Mixed Arbitral Tribunals have been questions of private debts under Article 296 of the Treaty of Versailles and similar articles of the other treaties, and damages due to exceptional war measures in German or Austro-Hungarian territory under Article 297.

The United States has recently participated in three important arbitrations, the one with Germany under the Treaty of Berlin and a supplementary executive agreement, which is marked by the high-minded judicial impartiality of the American Umpire, the late Judge Parker; the one with Austria and Hungary; and the one with Mexico for the arbitration of pecuniary claims of American citizens against Mexico and of Mexican citizens against the United States. In addition, the British-American Arbitration under the Treaty of 1910 has been concluded, and the Las Palmas Arbitration with the Netherlands decided by Judge Huber of Switzerland. There have not been arbitrated the large number of pecuniary claims against Great Britain and France, arising out of the violation of the neutral rights of American citizens between 1914 and 1917, the former having been settled for a sum of \$1,500,000 under an Executive Agreement of May 19, 1927.

In February, 1927, during the diplomatic controversy with Mexico on the Mexican petroleum and land laws in their application to American citizens, the United States Senate, by a resolution believed to be unique in American history, unanimously voted, 77 to 0, its approval of arbitration as a method of settling the issue. The resolution and the public opinion which it reflected stayed, at least temporarily, the hand of those who appear to have been contemplating more forceful measures. The issue is highly debatable and is capable of adjudication by legal standards. Certainly the United States can well afford to take the lead in submitting to arbitration all pecuniary claims against other nations. A treaty concluded at Mexico City in 1902 and renewed at Buenos Aires in 1910 commits many of the American countries to that policy. Self-interest and the desirability of removing pecuniary claims from the political to the legal arena support the wisdom of the policy.

In 1928, Secretary Kellogg negotiated a series of arbitration treaties designed to take the place of the expired or expiring Root treaties. The new treaties provide for the submission of "justiciable disputes," but except questions within the "domestic jurisdiction" of either Party, or questions which involve the interests of third states or the Monroe Doctrine. Conciliation treaties, extending the Bryan model of 1913, are also under negotiation with several countries.

The Sixth International Conference of American States at Havana, 1928, passed a resolution approving obligatory arbitration of legal disputes and conciliation of all others. A conference to carry out this resolution was convened in Washington in December, 1928, and approved a treaty providing a wide scope for obligatory arbitration and conciliation. Practically the only exception from the obligation to submit questions to arbitration is the one covering questions within the "domestic jurisdiction" of either party, and the determination whether a particular issue is within the exception is to be left to the Tribunal—not to either of the parties themselves, as heretofore. This is a great advance. Even the Monroe Doctrine is not excepted. Detailed provisions are elaborated so as to recruit the Tribunal in the event that either country seeks to prevent a decision by failing to appoint judges. Only a few countries made reservations, and these are not fundamental. The treaty is now before the legislatures of the various participating countries for ratification.

Conclusions

International arbitration is a process which must be judged relatively. Its success depends upon the state of the world's political health, and upon a removal of the reasons for that distrust, apprehension and fear which are characteristic of international relations. Those vices have definite stimuli and causes, found in the unregulated and competitive *modus*

vivendi of the nations. The process of arbitration has thus a relation to armaments, for so long as the competitive struggle in the economic and political field induces distrust, apprehension and fear, it will be reflected in the growth of armaments and in the unwillingness to cultivate peaceful methods of adjusting differences. The world's real problem, therefore, the solution of which would almost automatically reduce armaments and promote arbitration, is to deflate those practices and the accompanying psychology which now make the competition for power and prestige seem normal and natural. The major postulates of international relations require reexamination, clarification and sanitation if disastrous conflicts are to be averted. Both ends may be therapeutically treated at the same time, the creation of rational institutions and the removal of the causes of hostility. To promote the former, however, while neglecting the latter, is to invite disappointment and danger. No more difficult problem ever engaged the intelligence and ingenuity of thinking people.

IV. THE OUTLAWRY OF WAR

I. TEXT OF THE MULTILATERAL ANTI-WAR TREATY

The President of the German Reich,
The President of the United States of America,
His Majesty the King of the Belgians,
The President of the French Republic,
His Majesty the King of Great Britain, Ireland and the British Dominions beyond the Seas, Emperor of India,
His Majesty the King of Italy,
His Majesty the Emperor of Japan,
The President of the Republic of Poland,
The President of the Czechoslovak Republic,
Deeply sensible of their solemn duty to promote the welfare of mankind;

Persuaded that the time has come when a frank renunciation of war as an instrument of national policy should be made to the end that the peaceful and friendly relations now existing between their peoples may be perpetuated;

Convinced that all changes in their relations with one another should be sought only by pacific means and be the result of a peaceful and orderly process, and that any signatory power which shall hereafter seek to promote its national interests by resort to war should be denied the benefits furnished by this treaty;

Hopeful that, encouraged by their example, all the other nations of the world will join in this humane endeavor and by adhering to the present treaty as soon as it comes into force bring their peoples within the

scope of its beneficent provisions, thus uniting the civilized nations of the world in a common renunciation of war as an instrument of their national policy;

Have decided to conclude a treaty and for that purpose have appointed as their respective plenipotentiaries: . . .

Who, having communicated to one another their full powers found in good and due form, have agreed upon the following articles:

Article I. The high contracting parties solemnly declare in the names of their respective peoples that they condemn recourse to war for the solution of international controversies, and renounce it as an instrument of national policy in their relations with one another.

Article II. The high contracting parties agree that the settlement or solution of all disputes or conflicts of whatever nature or of whatever origin they may be, which may arise among them, shall never be sought except by pacific means.

Article III. The present treaty shall be ratified by the high contracting parties named in the preamble in accordance with their respective constitutional requirements, and shall take effect as between them as soon as all their several instruments of ratification shall have been deposited at Washington.

This treaty shall, when it has come into effect as prescribed in the preceding paragraph, remain open as long as may be necessary for adherence by all the other Powers of the world. . . .

2. HISTORY

We have sketched the rise of the peace movement; let us now turn our attention definitely to a study of the contemporary forces which have made possible the outlawry of war. The student of sociology must recognize that, just as in the case of any modern material device, the new advance was contingent upon previous progress. The Paris Pact could never have been adopted by the nations of the world had it not been for the peace ideal which had gradually seeped into the minds of the people and their rulers. Thus in very large measure the peace treaty is the crystallization of world sentiment for peace.

Nevertheless, the concrete means by which a lofty ideal of peace has been precipitated into the cold actualities of an adopted multilateral treaty illustrate the technique of social progress. First of all, some one had to conceive the germ of the new idea and proclaim it to a society which was ripe for its consideration. In this case it was the head of a well-known firm of corporation lawyers, S. O. Levinson, whose mind thought out the idea. He published his thesis in a magazine article in 1918, laying down the proposition that so long as war remained a legal instrument it could never

be effectively abolished. He therefore proposed that war be made a crime under international law. He coined the phrase "the outlawry of war" and suggested that it be embodied in a universal treaty backed by a world court which would settle all differences by peaceful means and under the fundamental law that war was illegal.

Levinson endeavored to win "key" men to the support of his proposal. He early presented his idea to the late Senator Knox and to the philosopher John Dewey. Both became public champions of the project. He won great public figures: among others, the prophetic clergyman, John Haynes Holmes, the moral crusader, Col. Raymond Robins, the distinguished woman jurist, Justice Florence E. Allen, and—more important than all others—Senator William E. Borah, Chairman of the Foreign Relations Committee of the United States Senate. Eventually, Presidents Harding and Coolidge mentioned the outlawry proposal in one or more of their messages.

Levinson created a sounding board for his idea in the American Committee for the Outlawry of War, which enabled him to act impersonally even though the headquarters were in his own office.

The debate in the United States Senate in 1919 and 1920 with the acrimonious hostility of the "bitter-enders" to a League of Nations undoubtedly secured some support for outlawry among Senators who were looking for almost any alternative to the League. Events were thus playing into the hands of Levinson, and he was always ready to take advantage of every break.

It would have been difficult for the outlawry idea to become a reality so soon had it not been for William E. Borah. It will be remembered that to him more than to any other man was due the Washington Conference on Disarmament. He had always been the ready champion of peace and international friendship. He had consistently opposed American intervention in Russia and favored Russian recognition. He eagerly championed the outlawry of war and in 1923 offered a resolution in the United States Senate for its adoption. This resolution was franked out to thousands upon thousands of people throughout the country. It became the rallying center for peace organizations and many church bodies.

While Borah was winning converts for the idea by the tens of thousands, Levinson was quietly at work securing still more formidable support for the measure. He finally persuaded a good many peace organizations to agree on a formula of action in favor of the United States' adherence to the World Court provided that the nations should outlaw war within five years.

Mr. Levinson was also fortunate in winning over to his cause the brilliant editor of the *Christian Century*, Charles Clayton Morrison, who in 1926 devoted an entire issue to the outlawry of war and in 1927 published the first book on the subject. This printed material was sent all over the world and bore unexpected fruit in many influential quarters.

In the meanwhile the project had won such widespread support that Senator Borah, who prior to this time had not pushed to a vote his resolution in the Senate, determined to do so in 1927. However, before this was done, on the tenth anniversary of America's entrance into the World War, April 6, 1927, the Foreign Minister of France, M. Aristide Briand, among other things had said to an American reporter that "France would be willing to subscribe publicly with the United States to any mutual engagement tending to outlaw war, to use an American expression, as between these two countries." This chance remark would have probably died of inaction had it not been for the ever alert Levinson.

On reading the proposal of Briand for a bilateral treaty outlawing war, Levinson sailed for France, where he spent three weeks in frequent conversations with the Foreign Office urging it to draft a definite treaty and submit it formally to Washington. He suggested that this treaty be written in language so simple that the ordinary man in the street could understand it, that it should not embody any mechanism for peace, nor should it attempt to distinguish between the kind of war to be outlawed,—to make an exception of defensive war, for instance. His feeling was that if the treaty attempted to deal with a mechanism to attain peace, opinion about the mechanism might be so divided that the outlawry of war, the heart of the proposal, might be lost. It was not long before Briand sent over to the United States the proposed bilateral treaty outlawing war.

While Levinson was at work in France, Senator Borah proposed in the United States that Briand's proposal be enlarged so as to include Great Britain, the United States, France, Japan, and Italy. It would seem, therefore, that Senator Borah had an even more far-sighted strategy in regard to the Briand overture than had Levinson.

Senator Borah was repeatedly called into conference with the Secretary of State and the President and urged on them this point of view. It was thus that in December, 1927 Secretary Kellogg on behalf of the United States offered to sign the outlawry pact provided it could be concluded with the four other leading nations in addition to France and the United States, and would be open to the signature of all the others.

From this time Secretary Kellogg, acting with the aid of Senator Borah, conducted an official correspondence in support of his proposal, first with

France and then with other nations—the original six having been extended to include fifteen in all. This was certainly the outstanding diplomatic achievement of Secretary Kellogg,—probably the only one which will be remembered in history. He conducted the negotiations ably, answering every objection which was raised and standing firmly against reservations of any kind.

On August 27, 1928, in Paris, fifteen nations signed their names to the treaty. Simultaneously the United States Department of State handed to every capital in which it had accredited representatives a copy of the final text of the treaty and all the correspondence in regard to it. The other nations were all invited to adhere to the treaty. Since the United States still maintained an official quarantine of Soviet Russia, the French Government transmitted the invitation to Russia. The response to the invitation was immediate, and by January, 1929, a total of sixty-two states had signified their intention of accepting the general treaty, although they had not all ratified it.

The Soviet Union was the first formally to adhere to the pact, which it did on September 27, 1928. It was not until December that the treaty was sent to the United States Senate for ratification by the President, and on January 15, 1929, it was accepted by a vote of eighty-five to one.

It was scarcely more than six months later when the Briand-Kellogg peace pact came officially into force, on July 24, 1929. Fifteen nations were signatory to it and thirty-one other states adhered, thus making the treaty effective at that time between forty-six countries of the world.

It can thus be seen that from the moment when this idea was first publicly thrown out to the war-weary nations in 1918 to its acceptance by the entire world, a period of approximately eleven years had elapsed. The success of the idea required not only a long historical growth in peace sentiment, but a combination of favorable circumstances and national leadership. Had Senator Borah not been in charge of the Foreign Affairs of the United States Senate, had Briand been unwilling to agree to a multilateral treaty, had Secretary Kellogg been willing to accept reservations, the final acceptance of the proposal might have been delayed for years. It should also be noted that the idea was refracted by the media through which it came into being. The actual Briand-Kellogg pact nowhere mentions "the outlawry of war," nor does it provide the machinery of a world court. Actually the treaty "renounces" war. It takes the basic conception of outlawry and enacts it into reality without proposing any judicial machinery or a new body of law. Nevertheless, however much the refraction, the heart of the original proposal is still there. We have achieved a moral and

legal victory for peace that is incalculable. As students of sociology we know that great historic declarations for freedom, for liberty, and for equality have a significance far beyond the technicalities of their phraseology. This pact cannot but make it more difficult for any nation to engage in war. By throwing the moral and legal sanction of the entire world behind those who strive for peace it should make it far more precarious for any nation to embark on war, and it would afford every nation which genuinely wishes peace an opportunity of avoiding precipitate militaristic activity even in the event of actual invasion.

We may say that sociologically the proposal went through the following steps:

1. A consciousness of need for peace on the part of millions of people.
2. A solution not too widely at variance with the culture or vested interests of the dominant groups in the nations concerned.
3. Spreading the consciousness of this need, together with the proposed solution, first among influential leaders and secondarily among the masses of the people.
4. A conflict in solutions.
5. Open discussion of the issue.
6. Seizure of every opening, however small, to advance the project.
7. Willingness to compromise and allow others credit for achievement, provided the basic proposal should not be lost.
8. Its acceptance in principle by several official governments.
9. Its enactment into official international law through a multilateral treaty.
10. Its effect on international action, as shown in such a dispute as the Russo-Chinese conflict over the Manchurian Railway.

3. THE SECRETARY OF STATE TO THE FRENCH AMBASSADOR

The French Government responded to Secretary Kellogg's proposal that the treaty be made multilateral by intimating that its obligations under the League of Nations might stand in the way.

In reply Frank B. Kellogg sent the following letter:

The Secretary of State to the French Ambassador (Clandel)

WASHINGTON, February 27, 1928

... It is evident from our previous correspondence that the Governments of France and the United States are of one mind in their earnest desire to initiate and promote a new international movement for effective

world peace, and that they are in agreement as to the essential principles of the procedure to be followed in the accomplishment of their common purpose. As I understand your note of January 21, 1928, the only substantial obstacle in the way of the unqualified acceptance by France of the proposals which I submitted in my notes of December 28, 1927, and January 11, 1928, is your Government's doubt whether as a member of the League of Nations and a party to the treaties of Locarno and other treaties guaranteeing neutrality, France can agree with the United States and the other principal world powers not to resort to war in their mutual relations, without *ipso facto* violating her present international obligations under those treaties. In your excellency's last note this question was suggested for consideration.

Without, of course, undertaking formally to construe the present treaty obligations of France, I desire to point out that if those obligations can be interpreted so as to permit France to conclude a treaty with the United States such as that offered to me last July by M. Briand and offered again in your note of January 21, 1928, it is not unreasonable to suppose that they can be interpreted with equal justice so as to permit France to join with the United States in offering to conclude an equivalent multilateral treaty with the other principal powers of the world. The difference between the bilateral and multilateral form of treaty having for its object the unqualified renunciation of war as an instrument of national policy, seems to me to be one of degree and not of substance. A Government free to conclude such a bilateral treaty should be no less able to become a party to an identical multilateral treaty since it is hardly to be presumed that members of the League of Nations are in a position to do separately something they cannot do together. I earnestly hope, therefore, that your Government, which admittedly perceives no bar to the conclusion of an unqualified anti-war treaty with the United States alone, will be able to satisfy itself that an equivalent treaty among the principal world powers would be equally consistent with membership in the League of Nations. If, however, members of the League of Nations cannot, without violating the terms of the Covenant of the League, agree among themselves and with the Government of the United States to renounce war as an instrument of their national policy, it seems idle to discuss either bilateral or multilateral treaties unreservedly renouncing war. I am reluctant to believe, however, that the provisions of the Covenant of the League of Nations really stand in the way of the coöperation of the United States and members of the League of Nations in a common effort to abolish the institution of war. Of no little interest in this connection is the recent adoption of a resolution by the Sixth International Conference of American States expressing in the name of the American Republics unqualified condemnation of war as an instrument of national policy in their

mutual relations. It is significant to note that of the twenty-one states represented at the Conference, seventeen are members of the League of Nations.

I trust, therefore, that neither France nor any other member of the League of Nations will finally decide that an unequivocal and unqualified renunciation of war as an instrument of national policy either violates the specific obligations imposed by the Covenant or conflicts with the fundamental idea and purpose of the League of Nations. On the contrary, is it not entirely reasonable to conclude that a formal engagement of this character entered into by all of the principal powers, and ultimately, I trust, by the entire family of nations, would be a most effective instrument for promoting the great ideal of peace which the League itself has so closely at heart? If, however, such a declaration were accompanied by definitions of the word "aggressor" and by exceptions and qualifications stipulating when nations would be justified in going to war, its effect would be very greatly weakened and its positive value as a guaranty of peace virtually destroyed. The ideal which inspires the effort so sincerely and so hopefully put forward by your Government and mine is arresting and appealing just because of its purity and simplicity; and I cannot avoid the feeling that if governments should publicly acknowledge that they can only deal with this ideal in a technical spirit and must insist upon the adoption of reservations impairing, if not utterly destroying the true significance of their common endeavors, they would be in effect only recording their impotence, to the keen disappointment of mankind in general.

From the broad standpoint of humanity and civilization, all war is an assault upon the stability of human society, and should be suppressed in the common interest. The Government of the United States desires to see the institution of war abolished, and stands ready to conclude with the French, British, Italian, German and Japanese Governments a single multilateral treaty open to subsequent adherence by any and all other governments, binding the parties thereto not to resort to war with one another. The precise language to be employed in such a treaty is a matter of indifference to the United States so long as it clearly and unmistakably sets forth the determination of the parties to abolish war among themselves. I therefore renew the suggestion contained in my note of January 11, 1928, that the Government of France join with the Government of the United States in transmitting to the British, Italian, German and Japanese Governments for their consideration and comment the text of M. Briand's original proposal, together with copies of the subsequent correspondence between France and the United States as a basis for preliminary discussions looking to the conclusion of an appropriate multilateral treaty proscribing recourse to war.

Accept [etc.]

FRANK B. KELLOGG

4. THE PACT SANCTIONS WAR²¹

I

The origin of the negotiations between the United States and other powers leading to the conclusion of the so-called Briand-Kellogg Pact for the renunciation of war is well known. Beginning with an expression of good-will in M. Briand's note of April 6, 1927, commemorating the entry of the United States into the war and expressing France's willingness to conclude a treaty renouncing war between France and the United States, the negotiations developed rapidly. On June 20, 1927, the French Foreign Minister presented the draft of a treaty embodying his proposal, providing for a condemnation of "recourse to war" and renouncing war as between France and the United States as an "instrument of their national policy." The settlement of all disputes was never to be sought "except by pacific means."

On December 28, 1927, Mr. Kellogg proposed to the French ambassador the extension of the proposed declaration to all the principal Powers. It was argued in the United States that, if the treaty were signed by the United States and France alone, it would be a treaty of alliance. In his accompanying draft of a treaty, Mr. Kellogg recommended the outright and unconditional renunciation of war and the solution of disputes by pacific means only.

The French press was critical. It was maintained that France had obligations to the League of Nations and could not make these new commitments. But the criticism was dropped after forty-eight hours on the publication of the French reply undertaking to renounce "wars of aggression." This gave apparently a new turn to the negotiations. The State Department did not reply officially, but officers of the Department pointed out that the term "aggressive" changed the entire meaning of the proposition and was not acceptable to the United States. In this position the State Department seems to have had the support of the American press. Editorially it was agreed that "renunciation of aggressive war" was too intricate an expression to define and that the French interpolation of this qualification left Mr. Kellogg's proposition denatured of its vital part and meaningless. Mr. Kellogg pointed out in his new note that the first French note of June 20, 1927, contained no limitation of wars of aggression. In this connection it is well to note that Sir Austen Chamberlain rejected the attempted definition of "aggressor" in the Geneva Protocol as, I believe, one who declines to submit a dispute to discussion in these words: "I therefore remain opposed to this attempt to define the 'aggressor' because I believe that it will be a trap for the innocent and a signpost for the guilty."

²¹ An address delivered at the Williamstown Institute of Politics, August 22, 1928, by Edwin Borchard, Yale University.

Considerable correspondence took place in the early part of 1928 as to the construction to be given to the proposed treaty. In his note of February 27, 1928, in explaining his objection to qualifications on the obligation to renounce war, Mr. Kellogg stated:

"The ideal which inspires the effort so sincerely and so hopefully put forward by your [the French] Government and mine is arresting and appealing just because of its purity and simplicity; and I cannot avoid the feeling that if governments should publicly acknowledge that they can only deal with this ideal in a technical spirit and must insist on the adoption of reservations impairing, if not utterly destroying, the true significance of their common endeavors, they would be in effect only recording their impotence, to the keen disappointment of mankind in general."

The same thought was expressed in Mr. Kellogg's speech to the Council on Foreign Relations on March 15, 1928, in which he said:

"It seems to me that any attempt to define the word 'aggression,' and by exceptions and qualifications to stipulate when nations are justified in going to war with one another, would greatly weaken the effect of any treaty such as that under consideration and virtually destroy its positive value as a 'guaranty of peace.'"

The subsequent negotiations, however, disclose the unfortunate fact that these very exceptions and qualifications to which Mr. Kellogg objected as so nullifying in effect have, in fact, found their way into the treaty as now universally construed.

The French Government maintained that the treaties must be construed so as not to bar the right of legitimate defense, the performance of obligations under the Covenant of the League of Nations, under the treaties of Locarno, under its treaties of alliance with its allies—now for some unexplainable reason called treaties of neutrality—that the treaty was to become ineffective if violated by one nation, and that it was to be signed by every state before it became effective as to any state. With the exception of this last reservation, Secretary Kellogg agreed to this interpretation of the French Government in his speech before the American Society of International Law on April 28, 1928, and incorporated his interpretation of the reservations as to self-defense, wars under the League Covenant, under the treaties of Locarno, and certain undefined and evidently unknown "neutrality" treaties, in his note of June 23, 1928, to the Powers, some fifteen in number, adding that "none of these governments has expressed any dissent from the above-quoted construction."

In his note of May 19, 1928, accepting the American proposition in principle, Sir Austen Chamberlain for Great Britain expressed his assent to the reservations made by France and added a new one in the following paragraph:

"There are certain regions of the world, the welfare and integrity of which constitute a special and vital interest for our peace and safety. His Majesty's Government have been at pains to make it clear in the past that interference with these regions cannot be suffered. Their protection against attack is to the British Empire a measure of self-defense. It must be clearly understood that *His Majesty's Government in Great Britain accept the new treaty upon the distinct understanding that it does not prejudice their freedom of action in this respect*. The Government of the United States have comparable interests, any disregard of which by a foreign Power they have declared they would regard as an unfriendly act." (Italics mine.)

The words in italics were repeated in the British note of July 18, 1928, undertaking to sign the treaty only on the understanding that the British Government maintained this freedom of action with respect to those regions of the world in which it had "a special and vital interest."

II

The original proposition of Mr. Kellogg was an unconditional renunciation of war. *The treaty now qualified by the French and British reservations constitutes no renunciation or outlawry of war, but in fact and in law a solemn sanction for all wars mentioned in the exceptions and qualifications.* When we look at the exceptions we observe that they include wars of self-defense, each party being free to make its own interpretation as to when self-defense is involved, wars under the League Covenant, under the Locarno treaties, and under the French treaties of alliance. If self-defense could be limited to the terms "to defend its territory from attack or invasion," as suggested by Mr. Kellogg, it would be of some value, but it is understood that no specific definition of self-defense is necessarily accepted.

Considering these reservations, it would be difficult to conceive of any wars that nations have fought within the past century, or are likely to fight in the future, that cannot be accommodated under these exceptions. Far from constituting an outlawry of war, they constitute the most definite sanction of specific wars that has ever been promulgated. War heretofore has been deemed like a disease—neither legal nor illegal. Now by a world treaty, the excepted wars obtain the stamp of legality. This cannot be charged primarily to Secretary Kellogg, whose intentions were of the best, but is a result of the reservations insisted upon by European Powers, which, it is still to be feared, comprehend peace as a condition of affairs achieved through war or the threat of war. The mere renunciation of war in the abstract in the first article of the treaty has but little scope for application, in view of the wars in the concrete, which the accompanying construction of the treaty sanctions. It is idle to suppose that the official construction given to the treaty by all the signatory Powers

is not as much an integral part of the treaty as if it had been written into Article I.

Again it will be noticed that we recognize a British claim to use war as an instrument of national policy in certain undefined "regions of the world," any "interference" with which by anybody, including the United States, will be regarded by Great Britain as a cause of war. To this we subscribe. When the United States at the first Hague Conference secured recognition by our cosignatories for the Monroe Doctrine, it was regarded as an achievement of American diplomacy. But the Monroe Doctrine has geographical limits known to everybody. To this new British claim there are no geographical limits. The vague and expansive terms of the British claim to make war, now recognized by us, covers any part of the world in which Britain has "a special and vital interest." No such broad claim of the right to make war has ever before been recognized.

But the most extraordinary feature of this treaty still remains to be mentioned. It will have been noticed that we recognize the legality of League wars and Locarno wars. As Europe correctly seems to assume, we are now bound by League decisions as to "aggressors" and League policy generally, but without any opportunity to take part in the deliberations leading to League conclusions. We indeed recognize by this treaty the legal right of the League to make war even against us, and it will be observed that Sir Austen Chamberlain in his note of May 19, 1928, frankly admits that respect for the obligations arising out of the Covenant is "the foundation of the policy" of Great Britain. Whether the further European claim that we are bound to *support* League conclusions as to "aggressor" nations, and other political conclusions, either by joining with the League or by refusing to trade with the League-declared pariah, is sustainable or not, at the very best it places us in the uncomfortable position either of being bound by decisions in the making of which we had no part or of having recriminations leveled against us for refusing to support our treaty.

The new contract begins with diverse interpretations of its obligations, for European views, reflected by Mr. Edwin James, of the *New York Times*, leave no doubt that Europe regards this treaty as a means of involving us in European politics. And we are entangled in the most dangerous way, for we are bound by decisions made in our absence, even decisions made against ourselves—because the recognition of the French and British reservations, now made the authoritative interpretation of the treaty by all the signatories, is a commitment for us. Our hands are tied, not theirs. The reservations are made at our expense, not theirs. Far better and safer would it be had we openly joined the League of Nations and been privileged to take part in deliberations which may lead to most important consequences. We might have been able to prevent undesirable conclusions and use our bargaining power to obtain occasional benefits and

advantages instead of disadvantages only. We are now about to sign a treaty in which we expressly recognize the right of the other signatories to make war upon anybody, including ourselves, for the purpose of enforcing, even against us, their mutual obligations under the Covenant of the League of Nations, not to mention individual undefined national interests in any part of the world. They alone will determine the occasion of such action, without our participation.

In justice to Europe, it cannot be said that they have left us in doubt as to their conception of our obligations. Indeed, these obligations are expressly or implicitly contained in the very reservations which the United States has accepted. Should we repudiate these commitments, we shall be denounced as a violator of our own treaty and not without some justification.

It has not been a pleasant task to analyze this Pact of Paris. The original American proposal was progressive, pure and simple, to use Mr. Kellogg's expression. The European amendments transformed the proposal into something entirely different—into a universal sanction for war, into a recognition by us of Europe's right to wage war, even against the United States, whenever the individual interests of certain nations are deemed to require it and whenever the League, in its uncontrolled discretion, decides upon it.

Need more be said? Would it not be far better either to join the League outright and have a share in those deliberations which to us may be so portentous or, better still, make the recourse to arbitration of justiciable issues and the submission to conciliation of non-justiciable issues obligatory at the request of either party? That would be a positive commitment which would make war extremely difficult, whereas the present treaties make war extremely easy. It is to be doubted whether the supposed valuable psychological effects of renunciation of war in the abstract can counterbalance the positive recognition of the legality of war in the concrete—not to speak of its commitments for American foreign policy. If this treaty is ever ratified, the test of its efficacy will be its effect on a limitation of armaments. The President's declaration that it is not expected to have any such effect and the avowed pleasure of certain foreign official newspapers at that promise hardly justify at the moment strong hopes of such a result. The abolition of war will, therefore, have to be pursued along other lines. Possibly in the elimination of the economic causes of conflict, including the attempted monopoly of raw materials and markets, and in the entente of business interests across national boundaries, there lies more hope than in legal efforts to preserve by force the *status quo*. Other machinery is needed to make changes in existing conditions, when time and circumstances require. To that effort but little attention has yet been paid. These matters are mentioned merely to indicate that, even if the Pact of Paris is not ratified or is accompanied

by explanatory reservations on our part, the solution of the problem of war and peace among independent nations has, perhaps, hardly been begun.

5. AN ANALYSIS OF THE PACT ²²

WHAT WARS ARE ACTUALLY PROHIBITED?

Article I of the pact states that:

"The High Contracting Parties solemnly declare in the names of their respective peoples that they condemn recourse to war for the solution of international controversies, and renounce it as an instrument of national policy in their relations with one another."

As a result of interpretative notes, the leading parties to the pact have made it clear that this renunciation does not apply to war in the following cases:

1. In self-defense.
2. Against any State which breaks the treaty.
3. In execution of obligations under the League Covenant.
4. In execution of obligations under the Locarno agreements.
5. In execution of obligations under treaties guaranteeing neutrality, which presumably include the French alliances.

Such is the list of wars which the pact does not prohibit. Some critics state that they are so wide as to make the pact of little value. Prof. Edwin M. Borchard has stated, "Considering these reservations, it would be difficult to conceive of any wars that nations have fought within the past century, or are likely to fight in the future, that cannot be accommodated under these exceptions. Far from constituting an outlawry of war, they constitute the most solemn sanction of specific wars that has ever been given to the world."

It may be argued, however, that instead of sanctioning the excepted wars, the anti-war treaty leaves these wars in exactly the same status as they were before the pact was signed—no more and no less legal. The actual range of the above exceptions can be determined only after an analysis of the circumstances under which these exceptions become effective.

The Right of Self-Defense

While the pacifists have long argued against the use of any force in international relations, no State has agreed to give up the right of self-defense, and it is difficult to conceive of any State so doing. The authors of the "outlawry of war" movement in the United States, did not propose to abolish the right of self-defense.

²² From the Foreign Policy Information Service, Nov. 9, 1928.

Coöperative Defense

The sanctions under the Covenant, the Locarno agreement, and the French alliances seemed to be based upon this same principle of self-defense. The sanctions do not constitute a primary right to go to war. They may be invoked only on behalf of a State which is illegally attacked and which is acting in the name of self-defense. If, for example, the territory of State A is invaded by State B, State A may, subject to the provisions of the Covenant, resist the invading army as an act of self-defense. It may also receive aid from the parties of the Covenant, of Locarno and of the French alliances, provided State A is a party to these agreements. In other words, when force is employed under these agreements it is in the nature of coöperative defense.

President Coolidge has insisted that despite the anti-war pact an adequate army and navy is still necessary for the self-defense of the United States. In other words good faith is not an adequate guarantee.

If it is legitimate for one State to maintain forces to defend itself, is it illegitimate for States jointly to maintain forces for coöperative defense? Without such sanctions it is argued that the reduction of armaments by each State is impossible. Without such sanctions small States, unable to maintain large armaments, may live under the fear of attack by well-armed powers. . . .

Self-Defense and International Law

Under international law, the term self-defense has often been given a wider meaning than in private law. And what is of even more importance, each State has decided for itself when the application of the doctrine is justified; there has been no international jury or tribunal to decide the limits of the doctrine.

General von Moltke, Chief of the German General Staff, and the military party in Germany believed in fighting wars of defensive aggression or "preventive wars." The enemy should be attacked before he can attack.

The same view of self-defense was stated by Chancellor von Bethmann-Hollweg before the Reichstag at the outbreak of the World War when he asked, "were we to wait until the Powers between whom we are sandwiched chose their time to strike?" The Reichstag and the German people originally believed that in this contest they were fighting a war of self-defense to forestall the "encirclement" policy of the Allies.

The European system of alliances has been generally regarded as instrumental in causing the World War. Yet these alliances were "defensive" in nature. The preamble to the military convention of 1892 between

France and Russia declared that both States had "no other object than to meet the necessities of a defensive war, provoked by an attack of the forces of the Triple Alliance." The Triple Alliance of 1882 between Austria-Hungary, Germany and Italy was declared to have an "essentially conservative and defensive nature." Competition in armaments may likewise be carried on in the name of "self-defense."

Aggressive "Self-Defense"

Moreover, as the origin of the Franco-German War of 1870 shows, it is possible for a State, acting technically in self-defense, to engage upon a war to achieve aggressive ends. The occasion for this war was the succession of a Prussian prince to the Spanish throne, which the French Government vigorously opposed. Bismarck, who for various reasons had desired a war with France, brought the dispute to a head on July 13, 1870, by editing the famous Ems dispatch to the effect that, in view of the French demands, the Prussian Emperor had virtually told the French Ambassador, Beneditti, to leave the country. This was a misrepresentation of the situation. Coming at the end of a period of tension, the Ems dispatch aroused an emotion in France which made conciliation impossible and which led the French Government on July 17, to declare war. French troops thereupon moved across the Rhine and took Saarbrücken. The German army, under Moltke, soon administered an overwhelming defeat to France, and Germany imposed a peace treaty which deprived France of Alsace-Lorraine and imposed an indemnity of five billion francs. Such was the result of a war in which France had been technically the "aggressor" and Germany had acted in "self-defense."

The question of whether or not facts warranted the application of the doctrine of self-defense arose in the *Caroline* affair. During a rebellion in Canada in 1837, armed men from across the Canadian border attacked, upon American territory, the *Caroline*—a vessel belonging to Canadian insurgents. The subject became a matter of correspondence between the two governments, in which Lord Palmerston assumed responsibility for the destruction of the *Caroline*, as a public act of force, in self-defense. Mr. Webster, American Secretary of State, admitted the existence of the "great law of self-defense," but said the necessity should be "'instant, overwhelming, and leaving no choice of means and no moment for deliberation.'"

Although no agreement upon this point was reached, discussion was dropped in view of the fact that the British Government apologized for entering American territory. Unlike the cases discussed above the *Caroline* case involved measures of force taken by Great Britain against individuals on American soil. These measures were not directed against the American Government. Nevertheless, had the United States and Great Britain been

on unfriendly terms, the dispute over the meaning of "self-defense" in this case might have led to war.

The United States upon several occasions has invoked the doctrine of self-defense to invade foreign territory. In 1814 Major-General Jackson marched into West Florida, then a possession of Spain, during the war between the United States and Great Britain. In justification of this conduct, it was declared that the Seminole Indians in West Florida had been plotting against the United States. On November 28, 1818, Secretary of State Adams defended the occupation of Spanish territory "as a necessary measure of self-defense. . . ."

In 1836 the United States defended the pursuit on Mexican territory of bands of Indians "upon the immutable principles of self-defense—upon the principles which justify decisive measures of precaution to prevent irreparable evil to our own or to a neighboring people."

The doctrines advanced by the United States in the case of the *Caroline*, the Seminole Indians, etc., apply to instances where the offenders have been individuals located upon foreign territory. These doctrines might not necessarily apply, therefore, between States.

Self-Defense and the Monroe Doctrine

It has been agreed that the anti-war pact does not prevent the signatories from going to war in self-defense and that each State decides for itself "where circumstances require to war in self-defense." Several definitions of this doctrine have recently been advanced in connection with the anti-war negotiations. Thus the British Government declared that the protection of certain regions constituted for the British "a measure of self-defense." The United States did not mention the Monroe Doctrine during the course of the negotiations; nevertheless, the question is frequently asked, what effect will the pact have upon this Doctrine and its enforcement? It has been suggested that the United States will regard the use of force under the Monroe Doctrine as an act of self-defense.

The use of force by the United States under the Monroe Doctrine is conceivable under at least three circumstances:

(1) To repel the military invasion of a Latin American State by a non-American power.

(2) To intervene in Latin American countries where disorders threaten foreign interests.

(3) To prevent the execution of agreements between Latin American and non-American powers providing for the establishment of naval bases, etc., which in the opinion of the United States might endanger its security.

If, under the anti-war pact, State X should invade a Latin American State, and assuming that both States were parties to the anti-war pact, the

United States would recover its freedom under the pact with reference to State X. There would be no conflict between the treaty and this aspect of the Monroe Doctrine. The same consideration would apply to the execution of the treaty of November 3, 1903, between the United States and Panama. In this treaty, the United States "guarantees and will maintain the independence of the Republic of Panama." It may be argued that the obligations of the United States vis-à-vis Panama under this treaty are similar to the obligations of other States under the Covenant and the Locarno agreement. In case Panama is attacked, the United States, under this treaty, would presumably be obliged to lend it military support. If both Panama and the attacking power are parties to the anti-war pact, the United States would be free to act with respect to the attacking power which had thus violated the anti-war pact. If Panama should not become a party to the pact, the United States would apparently have to justify the use of force against a signatory to the pact in behalf of Panama, on the ground of self-defense; *i.e.*, of defending the Panama Canal Zone. The United States holds this zone under perpetual lease and for the purposes of the treaty it would probably be regarded as part of the territory of the United States.

But will the pact prevent the United States from continuing its policy of military intervention in Central American countries? The United States delegation at Havana vigorously opposed a non-intervention resolution at the time when the United States was carrying on its anti-war negotiations. The government of the United States has frequently carried on military operations without any direct authorization of Congress, although that body under the Constitution has the power to declare war. Moreover, a number of governments have landed marines or other troops in disorderly countries for the purpose of protecting foreign interests without regarding such an act as necessarily creating a state of war.

It may be argued, therefore, that the anti-war pact does not affect the right of temporary intervention by the United States or other powers. Nevertheless if the anti-war pact does not prohibit the United States from intervening in Latin America, it does not prevent European governments from doing so for the same reason. The question therefore arises, how may the United States, under the anti-war pact, forcibly prevent European intervention in Latin America, unless it justifies the use of force for this purpose on the ground of self-defense?

Any such definition of self-defense has been regarded with wide misgivings. It has been argued that the solution of the difficulty is in placing all intervention under some form of international control which will prevent the abuse of intervention for the ends of a single power.

Will the pact prevent the United States from using force to prevent a Latin American State from granting naval bases, etc., to a non-American power? Hitherto any such agreement has been regarded as a danger to

the security of the United States, and it is possible to argue that any preventive acts to forestall such a danger would be "self-defense" within the meaning of the pact. Nevertheless, if all the parties to the pact should support this doctrine of "preventive" wars, it is difficult to conceive of any war which the pact actually prohibits. In considering the necessity of adopting a reservation to this effect, the question should be asked whether the fear of such agreements is of more than theoretical importance; and also whether or not the danger, if it exists, cannot be guarded against by other means. At the Washington Conference the British, American and Japanese Governments signed an agreement providing for the *status quo* in regard to naval bases in the Pacific. A similar agreement might be negotiated among the various American governments.

Protest Against the British Doctrine

It would seem possible to give the term "self-defense" perhaps as many divergent interpretations as the term "aggressive war." Moreover, the policy which one State defends on the ground of "self-defense" may be criticized by another State on the ground of "aggression," or "imperialism." Thus in its note of August 31, 1928, the Soviet Government criticized the so-called British Monroe Doctrine. It stated that the recognition of the British claim "might be an example for other nations to follow." The probable result would be that there would not be a single spot in the world where the terms of the pact were applicable. The Soviet Government could not "but regard this reservation as an attempt to use the pact itself as an instrument of imperialistic policy."

Likewise the president of the Wafd, the Egyptian Nationalist party, and the presidents of the Egyptian Senate and Chamber protested against the British reservation. The first declared that the peace of the world could not be assured if such a reservation could cover "imperialistic enterprises having no other justification than force." In signifying its intention to adhere to the pact on September 4, the Egyptian Government stated that such adherence was not to be considered as "implying any admission of any reserve whatever made in connection with the pact."

In its note of October 4, 1928, in regard to the pact, the Persian Government also declared that "the reservations made by certain powers," cannot under any circumstances or at any time create on the part of Persia any obligations whatsoever to recognize anything possibly susceptible of contravening its territorial and maritime rights and possessions.

On October 31, 1928, the Turkish Government sent a declaration to the United States adhering to the anti-war pact, "subject to the ratification of its action by the Grand National Assembly." In a note the Turkish Government declared, in part:

"Believing that the treaties of neutrality concluded between Turkey

and other states are in harmony in spirit and in letter with the aim and significance of the treaty. . . . Turkey agrees to sign the pact without reservations . . . and considers itself reciprocally bound by the text of the proposed act exclusive of all the documents which have not been submitted as an integral part of the pact to the collective signature of the participating states."

This last sentence is an apparent reference to the British reservation in regard to "special interests," since in the note quoted above Turkey agrees to the "explanations" given in the American note of June 23.

Thus Egypt, Persia and Turkey have made reservations in regard to the British Monroe Doctrine. Afghanistan has not yet replied, but within recent years it has usually acted in agreement with its neighbors. Russia has also protested, as we have seen, against the British reservation. . . .

The Interpretations

During the anti-war pact negotiations, Secretary Kellogg declined to accept amendments or reservations to the pact. Any such reservations, he said, would weaken its purity and simplicity. Naturally he would be opposed to similar reservations or amendments by the United States Senate. Nevertheless, in his address to the American Society of International Law, Mr. Kellogg was the first to lay down "interpretations" which other governments subsequently accepted in place of amendments or reservations.

On August 8 the press reported Secretary Kellogg as follows: "Interpretations to the multilateral treaty to renounce war are in no way, a part of the pact and cannot be considered as reservations." It was stated that the interpretations will not be deposited in the text of the treaty. Whether or not the President transmits the interpretative notes to the Senate with the text of the treaty, the Senate already has access to the text of the diplomatic correspondence embodying these interpretations. In determining whether or not to vote for the treaty, each Senator will thus be able to construe the treaty in the light of these interpretations.

If the terms of the treaty were precise, these interpretations might not be of importance. But in this case the treaty merely renounces war "as an instrument of national policy"—a phrase susceptible of wide and varying meanings. It does not seem possible to interpret this phrase without reference to the interpretations given it by Secretary Kellogg in his address to the American Society of International Law and in the notes of the various governments which preceded the signature of the pact.

In 1850 the United States and Switzerland signed a most-favored-nation treaty. In 1898 the Swiss Government declared that this treaty entitled it to receive unconditional most-favored-nation treatment by virtue of an interpretation made by Switzerland at the time of signing the treaty and which was accepted then by the American Minister. Secretary John

Hay agreed to this position, although it contradicted the customary American policy of negotiating only conditional most-favored-nation treaties. Secretary John Hay investigated the Swiss contention, and in a note of November 21, 1898 declared:

"As a result of this investigation, it appears that the Executive Department was advised by its plenipotentiary of the alleged understanding, that the dispatch indicating it was communicated by the President to the Senate in connection with the treaty submitted for ratification, and that the treaty was ratified without amendment of the clauses in question

"Under these circumstances we believe it to be our duty to acknowledge the equity of the reclamation presented by your Government. Both justice and honor require that the common understanding of the high contracting parties at the time of the executing of the treaty should be carried into effect."

A second precedent may be found in an exchange of notes of April 4, 1908, between Secretary of State Elihu Root and Ambassador Bryce, at the time of the signing of the Treaty of Arbitration between Great Britain and the United States. These notes declared that the final sentence of Article II has been inserted in order to preserve to both governments the freedom of action "secured to the United States Government under their constitution until any Agreement which may have been arrived at shall have been notified to be finally binding and operative by an exchange of Notes." It was also "understood that this Treaty will not apply to existing pecuniary claims nor to the negotiation and conclusion of treaties for the settlement of questions connected with Boundary Waters."

These notes were sent to the Senate for its information along with the treaty, but the notes were not mentioned in the Senate resolution, the instrument of ratification or the *procès-verbal* of exchange, all of which take the customary form.

The status of the interpretative notes is of more than academic interest for two reasons. First, some Senators may, before approving the pact, desire to secure a definition of the term "self-defense," especially in its relation to the Monroe Doctrine. In view of the interpretations made by various governments to the treaty, would the Senate be justified in making interpretations of its own?

Second, would approval of the anti-war pact without reservations or interpretations mean approval by the United States of the interpretations of other governments?

The Soviet Government declared in its note of August 31 that "inasmuch as the note of the British Government has not been communicated to the Soviet Government as an integral part of the compact or its supplement, it therefore cannot be considered obligatory for the Soviet Government." Nevertheless, the British Government did transmit its interpretative notes to the League of Nations having a membership of fifty

odd States. And Mr. Kellogg tacitly accepted these interpretations, in the correspondence leading up to the treaty. Despite its statement that the British interpretations were of no legal value, the Soviet Government felt it necessary to say that it could not agree with any reservations "which can serve as justification for war." In adhering to the pact the Egyptian, Turkish and Persian Governments also declared that they could not be bound by the reservations of the other parties. . . .

The Pact and the Causes of War

More than three centuries ago, Albericus Gentilis wrote in his *De Jure Belli*: "In the absence of a supreme tribunal charged with passing judgment on international disputes, and in the absence of a super-state charged with the power to carry out the judgments of such a tribunal, States have no other alternative than to resort to force in order to have their rights recognized and their interests respected."

The movement in favor of international organization during the last few years has usually assumed that if war is to be effectively banned, some peaceful means for settling disputes must be established.

During the negotiation of the anti-war pact, the French, Polish and Czechoslovak Governments, all of which have profited from the 1919-1920 peace treaties, stressed the belief that the anti-war pact would, to quote the French note, perpetuate "pacific and friendly relations under the contractual conditions on which they are to-day established."

Freezing the Status Quo

Does this statement mean that the States regard the anti-war pact as one more step in freezing the *status quo*? Do they regard the pact as an added guarantee that the boundaries established in the peace treaties shall not be changed by force? In a note of October 6, 1928, the Hungarian Government, which lost territory as a result of the World War, informed the United States that it adhered to the anti-war pact "under the supposition that the Government of the United States as well as the governments of the other signatory powers will seek to find the means of rendering it possible that in the future injustices may be remedied by peaceful means."

Article II of the anti-war pact declares:

"The High Contracting Parties agree that the settlement or solution of all disputes or conflicts of whatever nature or of whatever origin they may be, which may arise between them, shall never be sought except by pacific means."

This article does not seem to create a positive obligation to *settle* disputes by pacific means. It merely provides that they shall not be set-

tled by non-pacific means. Neither does this article define the procedure to be followed. In his address of August 27, M. Briand declared, "Peace is proclaimed. That is well; that is much. But it still remains necessary to organize it. In the solution of difficulties, right and not might must prevail. That is to be the work of to-morrow."

The argument that the pact freezes the *status quo* and hence is undesirable is weakened by the fact that Germany who is vigorously opposed to the freezing of the *status quo* was among the first to support the anti-war treaty. Nearly a year before the signature of the anti-war pact Dr. Stresemann, the German Foreign Minister, had declared, "there does not exist in Germany any responsible man who would be criminal enough to drag Germany into a war with any power whatsoever, neither in the west nor in the east." Germany does not like some of the provisions of the Treaty of Versailles, but Germany does not wish to change them by force. Apparently Germany believes that the conclusion of the anti-war pact will make for a better international feeling and that this feeling will lead to voluntary readjustments in the peace treaties of immensely more value than any attempted readjustments by force.

Moreover, as the Graeco-Bulgarian incident shows, the Members of the League have accepted already the obligation of pacific settlement and erected machinery to assure peace. Article 11 of the League gives any Member of the League "the friendly right" to bring to the attention of the Assembly or of the Council any circumstance whatever affecting international relations which threatens to disturb international peace or the good understanding between nations upon which peace depends." Article 19 gives the Assembly the right to advise the consideration of treaties "which have become inapplicable and the consideration of international conditions whose continuance might endanger the peace of the world."

The Members of the League have therefore devised machinery, imperfect as it may be, for the settlement of disputes. Through its arbitration agreements, its "Bryan Peace Commission treaties" and the anti-war pact, the United States has accepted the same obligations. But it has yet held back from participation in machinery to make the application of the obligations effective. It has not associated itself with the general activities of the League.

The Question of Sanctions

The first part of this report has shown that many States have emphasized the principle of sanctions or of cooperative defense. Many of them have stated that unless they can rely upon help from other States in case of attack they cannot disarm. Nevertheless, unlike the Covenant of the League, the anti-war pact contains no sanctions. If one party violates the pact, the other States do not promise to do anything about it; they simply are relieved of their obligation not to go to war against the

guilty State. Nevertheless, in the case of wars prohibited by the Covenant, the violation of the pact by a League Member would encounter the sanctions imposed by Members of the League. The main sanction provided for in the Covenant is an economic boycott. The opinion has been frequently expressed that the League could not successfully apply such a boycott against a violator of the Covenant, so long as the United States, whose commercial interests would be immediately affected by such a boycott, insisted upon adhering to the old laws of neutrality which had been based on the legality of war.

Several attempts to waive these traditional neutral rights of the United States in the case of an aggressor have been made. The original Burton resolution introduced December 5, 1927, declared that the policy of the United States was to prohibit the export of arms to an aggressor country, as determined by the President. Objection to the original resolution was made on the ground that in prohibiting the export of arms to one belligerent and not to another, the United States would be violating the rules of neutrality. This objection would now seem to have been met by the anti-war pact; *i.e.*, if a State goes to war in violation of the pact, the United States is under no obligation to treat it as a neutral but as a State which has violated its obligations.

While the United States has not undertaken any obligations to apply sanctions against a State which violates the anti-war pact, it is argued that the United States will feel morally bound to support the pact of which it is the author by waiving its "neutral rights" in case the League members should attempt to impose an economic boycott against a State which violates the pact and the Covenant at the same time. On July 30, 1928, Sir Austen Chamberlain declared in the House of Commons that the importance of the anti-war treaty depended on "how the rest of the world thought the United States was going to judge the action of the aggressor, and whether they would help or hinder him in his aggression."

It has also been suggested that every party to the anti-war pact will feel morally bound to act against a State which violates it regardless of the particular issue. M. Briand declared on August 27 that a guilty State "would run the positive risk of seeing all of them gradually and freely gather against it with redoubtable consequences that would not long be ensuing."

Senator Borah in an interview in the *New York Times* of March 25, 1928, declared:

"Another important result of such a treaty [the anti-war treaty] would be to enlist the support of the United States in cooperative action against any nation which is guilty of a flagrant violation of this outlawry agreement. Of course, the Government of the United States must reserve the right to decide, in the first place, whether or not the treaty has been violated, and second,

what coercive measures it feels obliged to take. But it is quite inconceivable that this country would stand idly by in case of a grave breach of a multilateral treaty to which it is a party."

At present the League of Nations Council has been given the authority to conciliate disputes arising among the great majority of the States of the world and the action of the Council may therefore be of importance in bringing about or preventing war; or of stigmatizing as an aggressor a State which goes to war. Obviously such a decision may vitally offend the interests of the United States and it is argued that the anti-war pact will morally oblige the United States to accept the conditions thus created whereas otherwise it could protest against it. Commenting on this situation Professor Edwin Borchard has stated: "Far better and safer would it be had we openly joined the League of Nations and been privileged to take part in deliberations which may lead to most important consequences. . . .

M. Jules Sauerwein, prominent French journalist, stated in the *New York Times* that "the United States Government becomes the moral guardian of the *status quo* created by the Peace Treaty and subsequent treaties." After reviewing the disputes over Vilna and Danzig, Italian ambitions in North Africa, Yugoslavia's demand in regard to Salonika, Bulgaria's aspiration in regard to Constantinople, and Russia's threat to peace, he concludes: "We can see what a magnificent thing the United States has undertaken in seeking to prevent another war in unfortunate Europe."

On the other hand, Lord Cushenden, Acting Secretary of State for Foreign Affairs, declared in an interview at Paris at the time of signing the pact that he did not think the pact would make any "modification" in the American "attitude of aloofness from European complications, although there are some of us who might wish otherwise. There is no implication or any indication on the part of America to concern itself with European affairs."

Moreover it may be argued that the United States is not bound in any way by the anti-war pact to pay attention to any decisions of the League. The ratification of the pact will not change the legal relationship between the United States and the League. The United States will still have the right to decide whether or not a State going to war has done so in self-defense. Moreover, even if the anti-war pact were not in existence, the United States would be affected by a decision of the League Council just as the United States would be inevitably affected by another European war.

As far as sanctions are concerned, the anti-war pact is important from another angle: it would seem to prevent a State from resorting to self-help to enforce a claim against another State. Suppose, for example,

that the United States and State X submitted a dispute to an arbitral tribunal and that the tribunal decided in favor of the United States. Suppose also that State X refused to execute the award. Under the anti-war pact it may be argued that the United States would be prohibited from going to war against State X to compel execution. The anti-war pact would not, however, seem to prohibit the use of *international* sanctions for this purpose, since the pact prohibits merely war as an instrument of *national* policy. An international sanction does not necessarily mean an international force, but it may mean merely international authorization and control over the action of a single State.

The Pact and Disarmament

In the third place, disarmament has been regarded as essential to a peaceful international society. In its note of April 27, 1928, the German Government declared that the anti-war pact "must give a real impulse to the efforts for the carrying out of general disarmament." The Soviet Government declared that without the obligation to disarm, the anti-war pact "will remain a dead letter without real meaning." An opposite point of view has been expressed, however, by President Coolidge and by Mr. Herbert C. Hoover, the Republican presidential candidate. The former declared that the anti-war pact did not detract from the "obligation" to "maintain an adequate national defense against any attack."

In his speech accepting the Republican nomination for President, Mr. Hoover declared that "we must and shall maintain our naval defense and our merchant marine in the strength and efficiency which will yield to us at all times the primary assurance of liberty, that is, of national safety." In his Elizabethtown, Tennessee, address, October 6, 1928, Mr. Hoover said that "we must maintain our navy and our army in such fashion that we shall have complete defense of our homes from even the fear of foreign invasion." Similar expressions have been made in Europe.

While armaments for defense may be in keeping with the spirit of the anti-war pact, obviously this need is relative rather than absolute. That is, the defensive needs of the United States depend upon the size of armaments of its neighboring powers and the political likelihood that these powers will attack the United States.

Commenting on Mr. Hoover's speeches on the navy, President Nicholas Murray Butler of Columbia University has stated: "When the American people pledge renunciation of war they mean what they say, and take it for granted that our fellow-nations mean what they say. We shall not support any policy which would at once enter upon a new and enlarged plan of naval construction under the guise of defending ourselves against some power which has only just taken a formal pledge

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not to attack us. The contradiction and the hypocrisy of it would be comic were they not so unspeakably tragic."

It should be pointed out, however, that the army of the United States is already one of the smallest in the world and that its navy is inferior in strength, so far as large cruisers are concerned, to that of Great Britain. Nevertheless, it is argued that if the parties to the anti-war pact should proceed to lay down large building programs, they do not take the pact seriously and leave themselves open to charges of bad faith and even of illicit ambitions. If the real spirit of the pact is to be preserved and fostered, international agreements in regard to armaments upon a basis acceptable to the principal leading powers, it may be argued, is essential.

The Moral Significance of the Pact

The legal aspects of the anti-war pact have now been discussed. It has been necessary to determine the actual legal effect of the pact upon the right to go to war, and the relation of this pact to other factors in international relations, such as the pacific settlement of disputes, sanctions and disarmament. Our analysis seems to have demonstrated that the legal criticisms directed against the pact are not so great as some critics have supposed and that it contains no legal commitments not explicitly stated in the document. But, even if the pact should contain loopholes through which a self-seeking State may squirm, friends of the pact believe that it must be judged fundamentally, not by technical criteria, but by the moral and spiritual effect it may have upon world opinion and upon the future conduct of diplomacy and international relations.

Until very recent times groups in every important country have glorified the institution of war. It was not many years ago that von Moltke wrote: "War is an element in the order of the world ordained by God. In it the noblest virtues of mankind are developed; courage and the abnegation of self, faithfulness to duty, and the spirit of sacrifice; the soldier gives his life. Without war the world would stagnate and lose itself in materialism." In every great State the army and navy have occupied a high social position and have had great influence upon policy.

Moreover, the history of European diplomacy and international relations generally seems to demonstrate that most great powers have regarded war as sooner or later inevitable. They have relied for their safety and their rights upon physical strength.

Diplomats formed combinations and made bargains to postpone the evil day; but down in their hearts they believed the day would come. In 1914 Europe was ridden with war psychology. The international system was built upon a conviction of war's inevitability. No State dreamed of renouncing war as an instrument of national policy.

Ever since the Congress of Berlin of 1878 the Great Powers followed a policy of threats. They did not intend that war should occur as a result of their demands, but they did believe in backing up these demands with a show of force; they believed that the States upon which they made these demands were weak and would therefore have to give way.

Friends of the anti-war pact state that it will have a revolutionary effect upon international relations as they have existed in the past. In his American Legion speech, President Coolidge declared: "Had an agreement of this kind been in existence in 1914, there is every reason to suppose that it would have saved the situation and delivered the world from all the misery which was inflicted by the Great War." It is argued that the anti-war pact will abolish war psychology, and force governments and peoples to think in terms of peace; that it will no longer be possible for Foreign Offices to advance their ends by a policy of threats—whether open or veiled; that it will no longer be possible for demagogues to whip up popular enthusiasm in favor of wars on behalf of "national destiny" or "national honor." Disputes will continue to arise between nations; and they may or may not be positively settled by peaceful means. But it is contended that as a result of the new peace psychology produced by the pact, peoples will take the view that no matter how serious the dispute, there is no justification for solving it by force, unless the question of self-defense is involved. Some opponents state that the pact has no positive value since it does nothing which the League of Nations has not done. Nevertheless, while the League has made great progress toward organizing the machinery of peace, the "gap in the Covenant" still exists. This gap will be filled by the pact, it is argued, and, what is of equal importance, the United States, which has declined to accept the obligations of League membership, for the first time commits itself not to embark upon aggressive war.

Other opponents argue that the pact is useless without machinery for the pacific settlement of disputes, without disarmament, without the modification of peace-time policies which in the past have led to war. But in reply it is declared that if governments take the pact seriously, if in a high act of faith they really believe their neighbors have renounced war, they will soon translate this belief into acts. The occupation of the Rhineland, the prohibition of the union of Germany and Austria, the demand for large navies and high tariff walls rest largely upon the fundamental fear of war. If nations now really trust each other's promise, the justification for these and for other policies will, it is contended, come to an end.

If despite the ratification of the anti-war pact, governments decline to change their policies, if they construct large navies in the name of self-defense, and if they follow policies which unnecessarily irritate their neighbors, they may be charged with hypocrisy and the international situation may become more critical than if no anti-war pact existed. But it is

argued that even if governments pay only lip service to the ideal, the anti-war pact will become a formidable weapon in the hands of public opinion. If the British Government introduces a large navy bill into Parliament, members will ask, does this bill conform to the spirit of the pact? If the Government of the United States should land troops in Nicaragua, public opinion will ask, does this intervention conform to the spirit of the pact? Legal arguments upon these points may be made. But whatever the result of these arguments may be, the moral fact of the existence of the pact may constitute an overpowering obstacle to any peace-time policy which disturbs international friendship. Viewed from this standpoint, friends of the pact believe that it contains really immense possibilities.

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BOOK IX
CONCLUSION

CONCLUSION

WE HAVE been studying some of the forces making for change in our social, economic and political structure. Perhaps some might ask us in conclusion to formulate the laws of social movements. We should have to reply that the student of society is not yet in a position to make any scientific generalizations from the study of such complex phenomena. There are, however, certain noticeable trends and certain inferences which may be drawn with a fair degree of probability.

Mobility of Culture

We can conclude that it is now easier than formerly for the facts about new social movements to spread from country to country. If the people in one nation feel that a foreign movement has value, there is a tendency toward its adoption. Its advocates may represent only a small fraction of the people but they are usually quite vocal. The Cooperative Movement, Communism and the British Labor Party, all have their advocates in America. The basic ideas of any popular movement tend to spread abroad save as they are inhibited by differing economic and social conditions. Once it might have taken centuries for one society to learn of the social experiments of another. To-day, in spite of the barriers of propaganda, economic bias and class control, the facts about revolutionary movements elsewhere cannot be kept for many decades from the rank and file of the people. New ideas handed on by trade, travel, the telegraph, the wireless, the radio, and the moving picture play the rôle of yeast in the social ferment.

Social Explosion

While we have not weighed the costs of the social explosions we call revolutions, we have assessed to some extent the resulting products. We can, therefore, conclude that a social explosion has in some instances positive values. Whether or not these outweigh the injurious effects must be determined for each specific case. In any event the cost of a movement which can win its way by interpenetration, suggestion and sympathy is far less. Force movements such as those of Mussolini and of Lenin bring evils in their train which must be realistically faced.

Danger of Rigid Domination

On the other hand our study should have made clear that in modern society control by and for the few is dangerous. Domination as a form of social control is of doubtful value; it is too likely to lead to social explosion. Wherever there is present what Professor Carver of Harvard calls a "pig-trough" class who do not work and who yet live parasitically, there is a potential danger. Repression in group life where conditions are seriously maladjusted is potentially explosive; for groups will always seek to make changes if the fundamental urges of their physical and social selves are not satisfied. If the dominant group meets these efforts with violence and forces them back underground, inevitably they tend to appear in other more dangerous forms. It is clear that opposition between those who are for the time being masters of the social order and those who demand freedom to ventilate their grievances and better their status persists through all history. It seems to be true that excessive conservatism and repression of freedom in the long run result in the violent fall of the very institutions on whose behalf those methods were invoked.

Thus it can be said that in reality those most responsible for revolutions are the extreme conservatives.

Injustice

There are certain principles which seem to hold true in regard to injustice.

1. Most of the reform movements we have studied have their inception primarily in the experience of economic injustice.
2. Masked injustice tends to be of longer duration than open injustice.
3. Genuine freedom of press, association, and assemblage places limits on injustice although still permitting temporary control of the major agencies of public opinion.
4. Anything which tends to equalize the power of opposing classes tends to place limits on the injustice which it is possible for one group to inflict on another.
5. Whatever the political structure, great differences in education or in monetary power multiply opportunities for injustice.

Leadership

It appears from our study that the "great man" theory of history in its unmodified form is untenable. There is a constant interrelation between

the leader and the group. He is to some extent the creature of the social forces of the particular societal evolution of his day. He is usually a man who has had a vision of some social change or of the possibility of seizing power for himself. In order to achieve, he has had to try to remove the barriers to power. If his program is a radical one he has to overcome the vested interests of the dominant group and the inertia of the masses. It would also be possible to analyze leadership from the standpoint of psychiatry. For instance, leadership develops as compensation for a sense of inferiority or a feeling of inadequacy. It seems to the writer that a further study of leadership should lead to a new and more integrated theory of leadership which we might call the *Dynamic Achievement* theory. Leadership is a complex product depending on hereditary equipment, environmental opportunity, the cultural and group situation, luck, as well as the way the potential leader reacts. Of tremendous significance is the way the leader himself utilizes his opportunities. Action itself stimulates further leadership in the same direction. In other words, if a potential leader wastes his time in dissipation this increases the chances of a career in dissipation, if a leader begins to use the printed word it increases his opportunity to further achievement in writing. Action along any line tends itself to generate a drive in that direction unless it is blocked by the consequences of the effort. If a man begins to champion one unpopular cause, he is frequently led on to others. The differences between one individual and another cannot be resolved solely by the factors of biologic heredity and environment, they also depend on the drive which the individual himself generates. There were probably many men having equal intellectual capacity with a Lenin or a Mussolini who had as favorable environmental opportunity; the difference between these leaders and others seems to be that they made use of their opportunities. According to the Dynamic Achievement theory the leader is the one who not only combines the right heredity with favorable opportunity and the right historical situation, but who also over a long period has *made use* of his opportunities to intensify still further his drives and his capabilities. A favorable combination of all these factors usually develops some degree of leadership. If any one factor is absent, to that extent is leadership handicapped or prevented. Among those traits which seem to give distinct advantage to potential leaders are: youth, physique, enthusiasm, intelligence, imagination, all-round capability, sensitiveness to need, feeling of oneness with the common group, willingness to pay the costs of minority struggle, indomitable will power, persistence, courage and sincerity. Every leader is to some extent a schemer, a commander, a coördinator, an energizer, a critic, and a teacher.

General Principles

Our study would indicate that there are certain principles which seem to have held true for most social movements in the past:

1. They arise out of a genuine, felt need.
2. They have a slow growth at first.
3. To be successful they must win the outward allegiance of a majority of the people.
4. The intensity of the opposition will depend largely on the extent to which a movement interferes with vested interests and with the habits of the people.
5. Reformers are attacked on the basis of false charges and twisted truths.
6. Succeeding generations *tend* to honor reformers martyred by an earlier age, provided the movement has finally won general recognition.
7. Any established institution usually opposes a social reform at first but there are often leaders from these institutions who are won to the new movement.

Progress and Social Movements

In this volume we have not had time to master each movement, but, if we have read the material carefully, we have had at least a bird's-eye view. It is as if we had been viewing from the air a rapidly shifting scene. From our vantage point the small irregularities are less noticeable than the broad general sweep of the rivers, valleys and mountains over which we are passing. We can perhaps conclude that, just as mankind has been making progress on material lines, we have been making some progress on social lines. The crude Utopias of the early Middle Ages have been superseded by concrete programs of social change which are more or less practical. Modern social movements are taking into consideration an ever larger proportion of the membership of the group. We can also clearly recognize that our present social order is constantly changing. No one can be certain that private capitalism as we know it will endure. It seems clear that we have unduly emphasized *things* and that our economic order unduly appeals to and consecrates selfishness. Business success is founded to some extent on *getting* more than we *give*, on lauding the *acquisitive* rather than the *service* ideal. The trend of the ideals of humanity as shown in these movements is towards the substitution of a social for a materialistic standard.

There are many obstacles preventing the realization of this social goal. One factor which we have noted is that the individual is himself a product of the group. He takes over the ideas and *mores* of the particular society in which he has been brought up. Consequently, it is not easy for him to entertain new ideas. One of the great obstacles to any modern social movement is inhibiting ideas. We say "it never has been done, therefore it can't be done." In the days of slavery this same objection was used against the abolition movement. Another argument is "you can't change human nature." At one time this was used to prove the impossibility of doing away with duels. To-day some people feel that it is impossible to do away with war. Probably there is no more truth in one assertion than in the other, except that to do away with war is vastly more difficult than to eliminate the duel. It is said that only the profit motivation can make the economic mechanism function; nevertheless, the practical achievements of cooperation should raise serious doubts as to this assumption.

This course has demonstrated beyond dispute that there are hundreds and thousands of men and women who have faith in the possibility of a new order and who are willing to coöperate in trying to achieve it. They may not be following the most rational methods, but they are trying to apply their ideals even in a hostile culture.

If we look back over the various social movements which we have studied in perspective, we note their likeness to the course of a river. They do not flow in a straight line or smoothly. There are rapids, eddies and back currents. The stream winds back into the country for long distances. It is dammed up in lakes but with the march of time it inevitably tends to break down barriers and advances seemingly in the interests of humanity. The pessimist may believe that this stream is forever moving and getting nowhere, but in the light of the trend of the centuries the reader who is a realist can hardly fail to note that progress has been made.

Lessons for American Society

The reader should now review each movement, asking what particular lessons it has for American society. For example, consider Communism. Is its greatest lesson that we should never have revolutions? If so, it would seem to go against our own revolutionary traditions. Is not rather the chief lesson of the Russian Revolution that the remedial laws and policies with which a democracy meets the uglier developments of private capitalism is the certain security against cataclysmic revolution? In other words, injustice is one basic cause of revolution. Both E. Benjamin Andrews and W. G. Sumner told Dr. E. A. Ross of Wisconsin in June, 1898, independ-

ently that the mood of this country seemed to be like that in France on the eve of the Revolution! Few would make such a statement to-day for *a host of injustices have been removed*. Still, as every one knows, America has her problems. The economic leaders of America are willing to accept any material invention no matter how radical, providing it aids in producing things. On the other hand, they are stubbornly conservative when it comes to new inventions in the social realm. We will not give the same impartial scientific appraisal to a social movement that we do to a mechanical invention. Thus there is a real danger that we shall adopt the method of imprisoning agitators, of suppressing freedom of speech wherever it is embarrassing to established economic interest. Boston does not like to give permits to Communist parades, nor to meetings in memory of Sacco and Vanzetti even if addressed by college professors. The Russian Revolution teaches that we should be concerned with eliminating the causes for unrest, the reasons why individuals wish to agitate rather than to deny them a platform. In reality the amount of radicalism and unrest is a barometer of the amount of injustice. Of course, the Russian Revolution also teaches the tragic cost of reform through revolution but it can be hardly said at the present time that America needs this lesson. There is not the slightest danger of a violent revolution here.

Again, the opposition of Bolshevism to all religion, because it has been used by a selfish minority in its own interests, should make the churches realize that a religion is in danger which does not translate its ethical precepts into the community life. It is necessary to make Christian principles really function in the economic life of the nation. A genuine religious spirit cannot permanently continue if it is contradicted in the dominant practices of the business world. The anti-religion movement therefore teaches that the church must have both an individual mystical and a social appeal. Mysticism is only valid so far as it is translated into a daily conduct pattern.

The Russian Revolution also clearly shows the necessity of education for all the people. In spite of all we have done for free education America has an illiterate group five million strong and there is a growing tendency in some Eastern States to make the private school superior to the public. We have not yet given a sound sociological foundation to the rank and file of our young people who never get into our high schools. Even in our colleges we are just beginning to realize the importance of training students in how to think rather than inculcating in them the conventional stereotypes of our culture. To the extent that America can train her people to think intelligently for themselves, to that extent we have a prophylactic

against political injustice. Freedom of thought, of the press and of association are among the most certain vaccines against the toxins of arbitrary power.

Russia has made rather startling efforts to improve the status of labor by trade unions, social insurance, workers' clubs, vacations with pay, old age pensions, the seven-hour day, and other changes.

Can America learn from some of these experiments either what to avoid or what to adopt?

Trends

While Fascism may be somewhat at variance with some of the movements considered, on the whole certain trends are discernible.

1. *A growing power of the workers*; increasingly they are securing representation in industry.

2. *An extension of social control over matters which hertofore have been within the private domain*; autocracy is giving place to democracy both political and industrial.

3. *A denial of the unlimited right of private property*. There is a growing realization that property is to some extent a social trust and that the mere fact of private ownership should not enable an individual to use his property in ways that are injurious to the social order.

4. *A trend from individualism towards collectivism or coöperation*.

5. *A growing recognition of the necessity for the greatest possible opportunity for each personality* and that the development of personality is no less important than the acquisition of goods.

6. *A trend away from narrow nationalism towards internationalism and peace*.

The Technique of Transformation

From our studies it is apparent that we cannot predict the details of the organization that will be adopted by society in the future. We need experimentation in coöperation, labor parties, social and international mechanisms of all sorts, in order to determine which is best. When we did not have the trans-atlantic liner we used the sail boat; to-day, we are beginning to use the airplane. It is the same in the social realm. Society will probably experiment with various suggestions from radical social programs in order to find out which ones are practical and how far they are practical. That, as in all else, there will be a change in our present economic mechanisms seems reasonably clear. If this is true, it is important to know the technique of transformation. Will it be reform or revolution? Our study would seem to indicate that this depends more on the men of prop-

erty than it does on the radicals. If they put their trust in force and blindly refuse to tolerate any new movement, then revolutionary force will be used. If they are willing to listen to reason to appraise scientifically social movements, to test them by their results in practice, then we may get reform. Will the technique be by consent or by coercion? Again it depends on the attitude of those in power. Will they utilize autocratic controls? Will they experiment in the fields of humanics as they have in that of mechanics, or will they resist changes on the human side until coerced by an outraged public opinion? Will the technique be repression or freedom of speech? If repression is used against I. W. W.'s, strikers, Communists and other "trouble makers," then we shall inevitably have explosions, some of which will be serious. If we allow the safety valve of freedom of speech, we can largely avoid this danger. Will remedies take the form of political methods or of industrial action? It is probable that changes will come through both methods.

It seems fairly clear that in the last analysis we must have a scientifically planned economic life. We cannot afford to leave economic processes under the sway of blind self-interest.

These social movements have demonstrated that a strong resolute group with a clear idea of the ways and means which lead to a given goal, have been able to achieve astonishing results. No longer can we pretend to be in the grip of forces entirely beyond our control. A rational self-conscious society, that is a society that scientifically plans its ends, painstakingly sets out to achieve its ends, that is willing to acknowledge its mistakes or modify its methods in the light of its experience—this is the kind of society which social science should help to build.

In the past, man has increasingly won control over the forces of nature, annihilating distance and controlling climatic conditions. To-day it lies in mankind's power scientifically to modify its own social development. Will this carry us over a precipice or into an international cataclysm of our own making, or shall we build a world of decreasing friction and increasing harmony?

APPENDIX

COMMENT ON AUTHORS FROM WHOM MATERIAL HAS BEEN QUOTED IN THIS VOLUME

Arnot, R. Page, was born in Greenock, Scotland, in 1890. After leaving the University of Glasgow in 1914, he became secretary of the Fabian Research Department in London, the foundation of the present Labor Research Department, of which he was secretary until 1925 and since then director. The following works have been produced by him or under his guidance: *The Labour Year Book*; *Trade Unionism on the Railways* (with G. D. H. Cole); *The Russian Revolution; the Politics of Oil*; *The General Strike: Origin and History*. He is also a regular contributor to *The Labour Monthly*, a British labor review.

Bergengren, Roy F., was born in Gloucester, Mass., June 14, 1879. He was educated at the Lynn public schools and graduated from Dartmouth College in 1903. He completed his work at the Harvard Law School in 1906. From 1906 until 1918 he practiced law in Lynn, Mass. He was Commissioner of Finance of that city from 1915 until 1917, and a member of the Massachusetts Constitutional Convention in 1917-1918. In 1920 he became executive secretary of the Massachusetts Credit Union Association, which in 1921 became the Credit Union National Extension Bureau. He holds the executive secretaryship of this latter organization to-day. In the course of his work he has drafted twenty-seven credit union state laws and brought them through to enactment. He has organized over one thousand credit unions now doing an annual business of sixty million dollars. He has written a book on Coöperative Banking.

Boeckel, Mrs. Florence Brewer, is a direct descendant of John Hart, a signer of the Declaration of Independence. She is a graduate of Vassar College and did post-graduate work in France and Germany. She has been a magazine editor and writer and was active in the movement for woman suffrage. She was founder of the National Women's Press Club. At present she is Educational Director of the National Council for the Prevention of War.

Borchard, Edwin M., was born in 1884. He first attended the College of the City of New York and afterwards Columbia College and

Law School. In 1910 he represented the United States as an expert on international law in the Fisheries Arbitration at The Hague. From 1911 to 1916 he was Law Librarian of Congress, and Assistant Solicitor in the Department of State. He was chief counsel for Peru in the Tacna-Arica Arbitration, and has participated as counsel in other arbitrations. He was nominated for the panel of judges of the Central-American Court of Justice (1923). Since 1917 he has been professor of law at Yale University. He received his Ph. D. from Columbia in 1913 and an honorary Doctor of Laws from the University of Berlin in 1925. He has written some of the standard works on international law and is internationally recognized as an expert in that field.

Chase, Stuart, is a Certified Public Accountant, a Director of the Labor Bureau, Inc., and the Treasurer of the League for Industrial Democracy. He was born in Somersworth, N. H., in 1888. His father was an engineer and accountant. He received his education at Massachusetts Institute of Technology and at Harvard University. He is a member of the Bookkeepers, Stenographers and Accountants Union.

He served as the Massachusetts investigator for the Federal Trade Commission, 1917-1921; investigated the Chicago packers and prepared Volume V on Packers' Profits for the Federal Trade Commission; and was Director of the Coöperative Laundry in 1922-1923. He has held office as Treasurer of the Boston Fabian Society and as President of the Chicago Fabian Society.

Mr. Chase was one of the editors of *Soviet Russia in the Second Decade*, a joint survey by the technical staff of the first American Trade Union delegation, which visited Russia in the summer of 1927. He is the author of *The Tragedy of Waste*, and *Men and Machines*, and is a frequent contributor to periodicals.

Cole, George Douglas Howard, is Reader in Economics and Fellow of University College, Oxford. He was born September 25, 1889, and received his education at St. Paul's School, Balliol College, Oxford, and is a former Fellow of Magdalene College, Oxford.

He has been a member of the executive committee of the Workers' Educational Association since 1920; chairman of the Labor Publishing Company from its foundation in 1921; and chairman of the Association of Tutorial Class Tutors since 1923. He was the Deputy Professor of Philosophy, Armstrong College, 1913-14; was Tutorial Class Tutor, Oxford and London Universities from 1914 to 1919; was active in the Labour Research Department from 1912 to 1925; and was staff tutor of Tutorial Classes, University of London, from 1922 to 1925.

He served on the executive committee of the National Guilds League from 1912 to 1925; the executive committee of the Fabian Society from

1913 to 1915; as research officer to the Amalgamated Society of Engineers, 1915 to 1918; and as officer for Advisory Committees to National Labour Party, 1919 to 1921.

He is the author of *World of Labour; New Beginnings; Self-Government in Industry; Labour in the Commonwealth; Payment of Wages; Social Theory; Chaos and Order in Industry; Guild Socialism Restated; Future of Local Government; Workshop Organization; Labour in the Coal Mining Industry; Out of Work; The Brooklyn Murders; A Short History of the Working Class Movement*, the *Life of Robert Owen*, and others; and is joint editor of *New Standards*.

Debs, Eugene V., see pp. 106-110.

Douglas, Paul Howard, Professor of Industrial Relations at the University of Chicago, was born in Salem, Massachusetts, in 1892. He received his education at Bowdoin College, and Columbia and Harvard Universities. Prior to his present connection with the University of Chicago, Dr. Douglas has been associated with the University of Illinois, Reed College, and the University of Washington. He has taught in trade union classes in Seattle, Chicago, and Holyoke; has lectured at the Bryn Mawr Summer School for Women in Industry; and has served as economic advisor to the printing trades in Chicago. Dr. Douglas was one of the technical staff of the first American Trade Union delegation that visited Russia in the summer of 1927. He is the author of *Wages and the Family*, and *American Apprenticeship and Industrial Education*, co-author of several books, and a contributor to various publications in the field of economics, statistics, and political science.

Edwards, Lyford Paterson, Dean of St. Stephen's College, Annandale, New York, was born in London, Ontario, Canada, in 1882. He received his education at McGill University, the University of Chicago, Western Theological Seminary, Northwestern University, and Columbia University. Between 1907 and 1914, Dr. Edwards was rector of St. Matthews Church, Evanston, Illinois, and was curate of St. John's Church, Staten Island, New York. Prior to his connection in 1919 with St. Stephen's College, he was an instructor in the Nashotah (Wisconsin) Preparatory School and Rice Institute, Houston, Texas.

Dr. Edwards is the author of *The Transformation of Early Christianity* and *The Natural History of Revolution*, and is a contributor to sociological, religious and general periodicals.

Engels, Friedrich, was born in Barmen, Germany, November 28, 1820, the son of a wealthy manufacturer. On graduating from Barmen high school he went to the gymnasium of Elberfeld, but entered his father's

business a year before his final examination. In 1841 he served in the Guard Artillery in Berlin and became an authority on military science. Following this experience he went to Manchester as an agent of the spinning mill in which his father was a partner. For a number of years prior to that, he had been interested in the newer developments in philosophy and social thought, and on his way to England he dropped into the editorial office of the *Rheinische Zeitung* and met Marx for the first time. At the time they failed to see eye to eye and Engel's reception was cool. In England, at this time, he gathered material which formed the basis of his *Condition of the Working Classes in England in 1844*, a powerful indictment of the capitalist order.

On returning to the continent, Engels collaborated with Marx in writing *The Holy Family*. In 1845 he gave up the mercantile business and went to Brussels where Marx was then doing his work. The two were busy during the next two years in research, writing and organization. Engels visited London in the summer of 1847 as a representative of the Paris group to formulate a new program for the Communist League, and helped in writing the *Communist Manifesto*.

In 1849, he joined a volunteer corps in the Palatinate which was demanding a constitution for the whole German Empire, and on his return to London collaborated with Marx on the revolutionary movements of 1848-1850. In 1850, he reëntered business in order to earn enough to permit Marx to continue his literary work. In 1860 Engels' father died, and he became partner in the business. In 1869, he sold out his partnership, obtaining a large sum of money in return for his promise not to open up business in the same trade on his own account. Through this deal, he was able to pay Marx some 350 pounds a year for a number of years. From September, 1870, when Engels moved to London, until the death of Marx, the two kindred spirits worked side by side.

On Marx's death, Engels translated, completed, and secured the publication of many of Marx's works. He died on August 6, 1895, at the age of seventy-five. His chief works were *Socialism from Utopia to Science*; *Condition of the Working Class in England in 1844*; *Origin of the Family*; *Feuerbach*; and *The Roots of the Socialist Philosophy*.

Ferrari, Dr. Francesco Luigi, is an eminent Catholic lawyer and member of the National Council of the Italian Popular Party. He was persecuted by the Fascists and was finally obliged to flee from Italy. He is now practising law at Louvain in Belgium. In 1928 he published *Le Régime Fasciste Italien* which won him the degree of Doctor of Laws at Louvain. M. Vandervelde, formerly Minister of Foreign Affairs in Belgium, says of it: "Among all the literature recently published upon the Fascist system, I know nothing more powerful, more impressive, than this objective

study which by its use of the evidence of documents and facts alone becomes a formidable indictment." (*Le Peuple*, Dec. 2, 1928.)

Gentile, Giovanni, is one of the most prominent philosophers in Italy to support the Fascist state. He was born May 30, 1875, at Castelvetro, Trepani. He was Professor of Philosophy in the R. Liceo of Campobasso and of Naples (1899-1906). From 1906-14 he was Professor of the History of Philosophy in the University of Palermo, from 1914-1917 at Pisa and since then until recently in the University of Rome. He is a member of the Italian Senate and was Minister of Education in the first cabinet of Benito Mussolini. The changes he then made have come to be known as the "Gentile Reform" of Italian education. At present he is head of the Fascist Institute of Culture and one of the chief "apostles" of Fascism. He has written over thirty books.

Green, William, President of the American Federation of Labor, is fifty-seven years of age, having been born at Coshocton, Ohio, March 3, 1873, the son of Hugh Green, an English miner, and Jane (Oram) Green, a native of Wales. He gained his education in the public schools of Coshocton, and when eighteen years old went to work in the mines with his father. Almost immediately he took an active part in the miners' union. From 1900 to 1906 he was a sub-district president and from 1906 to 1910 was Ohio district president of the United Mine Workers. In 1912 he was elected international secretary-treasurer of the United Mine Workers, the office formerly held by William B. Wilson, who became the first secretary of labor in President Wilson's cabinet. A year later he was elected vice president and member of the executive council of the American Federation of Labor, succeeding the late John Mitchell in that office. William Green was a delegate-at-large to the Baltimore convention in 1912 which nominated Woodrow Wilson, and alternate-at-large to the San Francisco Democratic national convention in 1920. Mr. Green served two terms in the Ohio State Senate, of which he was Democratic floor-leader for both terms and president for both terms. He introduced and secured the enactment of the Ohio Workmen's Compensation Law, which has been accepted by organized labor as the model for other states. He also introduced and secured the passage of the Ohio Mine Run Law, an act which has proved to be of great benefit to the mine workers of Ohio and all those employed in the central competitive field (consisting of Ohio, Western Pennsylvania, Indiana, and Illinois).

Henderson, Arthur, see pp. 626-627.

Hertzler, J. O., is at present Chairman of the Department of Sociology in the University of Nebraska. He was born in 1895 and graduated from

Baldwin-Wallace College in Ohio in 1916. He was University Scholar in Social Ethics at Harvard the next year and then went to the University of Wisconsin where he completed his doctorate in 1920. From 1920-23 he was instructor in sociology at Wisconsin and since that time has been at the University of Nebraska. He is the author of the *History of Utopian Thought*; *Social Progress*; and *Social Institutions*.

Hughan, Jessie Wallace, who is a teacher in New York city, has been a member of the Executive Committee of the League for Industrial Democracy since about 1909, Secretary of the War Registers' League since its foundation, a member of the Executive Committee of the New York group of the Fellowship of Reconciliation since 1923, Vice-chairman of the Women's Peace Society since 1922, and a member of the Teachers' Union since 1923.

She was born in 1875, in Brooklyn, New York, the daughter of an accountant. She received her education at Northfield Seminary, Barnard College, and Columbia University.

Dr. *Hughan* was the Socialist candidate for Secretary of State of New York in 1918 and for Lieutenant-Governor of New York in 1920. She is the author of *American Socialism of the Present Day*; *The Facts of Socialism*; *A Study of International Government*; and *What is Socialism?*, and is coauthor of *Socialism of Today*.

Kellogg, Frank B., Secretary of State, was born in Potsdam, New York, in 1856. He received a common school education, and has had the degree of LL.D. conferred upon him by McGill University, University of Pennsylvania, and New York University.

He was city attorney of Rochester, Minnesota, for three years, and co-attorney for the Olmsted Company for five years. He went to St. Paul in 1887. He acted as special counsel for the United States in the case against paper and Standard Oil trusts; special counsel for the Interstate Commerce Commission in an investigation of the Harriman railroads; and for the United States in an action to dissolve the Union Pacific-Southern Pacific merger. He was president of the American Bar Association in 1912-1913. In 1923, he was a delegate to the 5th International Conference of American States held in Santiago, Chile. He was appointed Ambassador to Great Britain in 1924. Mr. Kellogg was the sponsor of the Multilateral Treaty for the Renunciation of War in 1928.

Laski, Harold J., Professor of Political Science in the University of London, was born in Manchester on June 30, 1893. He received his education from the Manchester Grammar School and New College, Oxford (Hon. Exhibitioner). He was awarded the Beit Essay Prize in 1913; First Class Honor School of Modern History, 1914.

Professor Laski was the lecturer in history at McGill University, 1914-1916; at Harvard University, 1916-1920; the Harvard lecturer at Yale University, 1919-1920; and the Henry Ward Beecher lecturer at Amherst College in 1917. He has been connected with the London School of Economics since 1920, and was lecturer in Political Science at Magdalene College, Cambridge, 1922 to 1925.

He is the vice-chairman of the British Institute of Adult Education and a member of the Council of Institute of Public Administration.

He is the author of *The Problem of Sovereignty; Authority in the Modern State, Political Thought from Locke to Bentham, Foundations of Sovereignty, A Grammar of Politics; Communism*; editor of *Letters of Burke; The Defense of Liberty against Tyrants; Autobiography of J. S. Mill*; and a contributor to liberal journals in England and America.

Lee, Algernon, the Educational Director of the Rand School of Social Science since 1909 and a member of the American Federation of Teachers, was born in 1873, in Dubuque, Iowa, the son of a millwright and carpenter. He was a member of the Socialist Labor Party from 1895 to 1899, and since that time has been a member of the Socialist Party.

He has edited the Socialist papers, *The Tocsin* (Minneapolis), *The Worker* (New York), and *The Call* (New York); was delegate to the International Socialist Congress in Amsterdam in 1904, Stuttgart in 1907, The Hague in 1916, and Frankfurt in 1922.

He was Socialist alderman of New York from 1918 to 1921. He was, however, counted out at the 1919 election, but after court proceedings and a recount was seated for the last two months of the term.

Lenin, Nikolai, see pp. 242-245.

Levermore, Charles H., was born in Connecticut in 1856. He has had a distinguished career as an educator and professor of history. From 1886 to 1888 he taught at the University of California, from 1888 to 1893 at the Massachusetts Institute of Technology, from 1893 to 1896 he was Principal of Adelphi Academy, and President of Adelphi College from 1896 to 1912. He has written extensively and was the winner of the Bok \$100,000 prize for the best plan to preserve peace among the nations of the world. He died on October 21, 1927.

Long, Cedric, see p. 536.

MacDonald, J. Ramsay, see pp. 623-626.

Marx, Karl, see pp. 86-97.

Mikoyan, Anastas Ivanovitch, is Commissar of Foreign and Domestic Trade of the Soviet government and at the age of thirty-four is one of the most important members of the Soviet government. He is also a member of the all-powerful political bureau of the Communist party and is a friend of Stalin.

He was born into a poor workingman's family in Tiflis, Caucasia. He became a full member of the Communist party at only twenty years of age. At the outbreak of the Revolution he was sent to Baku as a party worker and soon became secretary of the Bolshevik committee in Tiflis. In 1918 he was a commissar at the front against the advancing Turks. When the Turks succeeded in capturing Baku he was freed with a few other arrested Bolsheviks. Later, when the English took the city, he was again arrested by them, and he declares it was a miracle that he was not shot along with twenty-six of his comrades who paid the supreme penalty. Until March, 1919, he was kept in various jails by the English and only upon the demand of workers in Baku was he finally released. In May, 1919, while the English were still occupying Baku, Mikoyan organized and directed a general strike. He was finally arrested, with his entire committee. He managed to escape from the prison before being shot, but was rearrested soon afterwards. Fortunately for him, his real identity was not known—he was using an assumed name. He was exiled to Grushin but no sooner had he reached there than he secretly set out for Baku, where he again renewed his illegal work among the workers. At the end of 1919 Mikoyan was chosen a member of the Caucasian regional committee of the party and the same year managed to smuggle his way out by boat to Astrakhan and thence up the Volga to Moscow. Thus he personally reported to the central committee of the Communist party on the possibilities of an armed uprising in the Caucasus. Immediately after delivering his report he returned to Baku to continue illegal work. With the victory of the Soviet government in the Caucasus in 1920 he was sent to Nijni Novgorod, where he worked until 1922 as secretary of the Gubernia committee of the party. From 1922 till the fall of 1926 he was secretary of the North Caucasian regional committee of the party. Besides the other offices which he now holds, he is a member of the central committee of the Communist party.

Mussolini, Benito, see pp. 445-451.

Pennachio, Alberto, is a young lawyer who has been associated actively with the Fascist movement since its inception. At present he is an official of the Banca d'Italia at Rome.

Prezzolini, Giuseppe, was born in Perugia, Italy, January 27, 1882. He has long been prominent as a journalist and writer on political and literary subjects in Italy. He was early associated with Papini in the

publication first of *Il Leonardo* (1903-07) and later of *La Voce* (1908-16). The latter was a magazine published by young Italians who wished a renaissance in their country. He was the correspondent in Rome of *Il Popolo d'Italia* (1914-15). He has now been appointed by the League of Nations as head of the Information Department of the International Institute on Intellectual Cooperation in Paris. For the year 1929-30 he is visiting professor at Columbia University. He has published many books of critique, biography, and contemporary history, among which two were translated into English: *Fascism* (Dutton); and *The Life of Nicolo Machiavelli* (Brentano). In 1925 he published in Italian at Rome a volume on Benito Mussolini.

Rocco, Alfredo, was born in Naples on September 9, 1875. At twenty-four years of age he had already become a lawyer and university professor. He has taught Commercial Law at the Universities of Urbino, Macerata, Parma, Palermo and Padova and is now Professor of Labor Legislation in the School of Political Science at the University of Rome. He has been a collaborator in the publication of many scientific magazines and the author of many books. He is an ardent nationalist and a leader in the constitutional reforms which Mussolini has carried through. He is at present also Minister of Justice.

Ross, Edward Alsworth, a world-famous sociologist and one of the most prolific writers in that field in America, was born in Virden, Illinois, December 12, 1866. He graduated from Coe College (Iowa), in 1886, studied at the University of Berlin from 1888-89 and received his Ph.D. from Johns Hopkins in 1891. In 1911 Coe College awarded him the L.L.D. degree. He has taught at Indiana, Cornell, Stamford, Nebraska, Harvard, Chicago, and Wisconsin universities. At present he is head of the Sociology Department at the University of Wisconsin. He was president of the American Sociological Society in 1914 and again in 1915. Since 1895 he has been an advisory editor of the *American Journal of Sociology*. His sociological writings have been read throughout the world. As evidence of their lasting qualities, it is interesting to note that his *Social Control*, first published in 1901, still sells at the rate of five hundred or more copies annually.

Rossoni, Edmondo, was born in Italy in 1884 and was taken abroad in 1890, living successively in Switzerland, France, England, and Latin America. He early became a supporter of syndicalism. In 1910 he started in New York City an Italian newspaper, *L'Italia Nostra*, with the motto, "Our country is not to be denied but to be conquered." Returning to Italy during the War he helped in the organization of *Unione Italiana di Lavoro*, a syndicalist union. By June, 1922, at the first syndicalist Con-

gress at Milan, his organization represented about 500,000 workmen. Soon afterward it joined with the Fascist movement and Rossoni became President of the National Confederation of Fascist Trade Unions.

Salvemini, Gaetano. Was born in Malfetta, Italy in 1873. He was educated at the University of Florence, and was a secondary schoolteacher from 1895-1902. From 1902-10 he was Professor of Modern History at the University of Messina; from 1910-16 he held the same chair at the University of Pisa; and from 1916-1925 at the University of Florence. He was a member of the Italian Chamber from 1919-21. He was arrested in June, 1925, as an opponent of the Fascist Dictatorship. He left Italy in August, 1925. He resigned his chair at the university November, 1925, but was dismissed as an absentee December, 1925. He was deprived of Italian citizenship with total confiscation of property September, 1926.

Among his publications are: *La Dignita Cavalleresca nel comune di Firenze* (1896); *Magnati e Popolani nel Comune di Firenze* (1900); *La Rivoluzione Francese* (1906); *La riforma della Scuola Media* (1908); *The Fascist Dictatorship in Italy*.

At present he resides in London. He is internationally recognized as a distinguished historian.

Schapiro, J. Salwyn, author, is Professor of History at the College of the City of New York. He was born in Hudson, New York, in 1879, and received his education at the College of the City of New York and at Columbia University.

Dr. Schapiro is the author of *Social Reform and the Reformation; Modern and Contemporary European History*; and *Modern Times in Europe*, and is a contributor to various liberal periodicals.

Schneider, Herbert Wallace, graduated from Columbia University in 1915, receiving his Ph.D. from the same university in 1917. Since that time he has been a member of the Department of Philosophy at Columbia, first as an assistant professor, 1924-28, and then as professor of religion. From 1926-27 he was Fellow of the National Council of Social Science Research, studying the political philosophy of Fascism in Italy.

Besides contributing to the volume edited by Merriam and Barnes, *Contemporary Political Theory*, he has written *Making the Fascist State*, and is coauthor with S. B. Clough of *Making Fascists*.

Seligman, Edwin Robert Anderson, one of the leading economists in the United States, was born in New York in 1861. He graduated from Columbia University in 1879 and since 1904 has been McVickar Professor at Columbia. He served as President of the American Economic Association (1902-1904). He was President of the National Tax Asso-

ciation (1913-1915) and President of the Urban League (1912-1914). He has had a distinguished career in the public service. Among the many important commissions or public bodies on which he has served are the Special State Tax Commission in 1906, President Roosevelt's Commission on State Reorganization in 1908, the Mayor's Tax Commission (1914-1916), the Advisory Committee on the American Census from 1919-1922, and the President's Unemployment Conference of 1921. In 1922 and 1923 he was the expert to the League of Nations Committee on Economics and Finance. He has written a large number of important works in the field of economics and is at the present time editor of the *Encyclopedia of Social Sciences*.

Smith, Jessica, graduated from Swarthmore College in 1915. In 1922 she went to Russia with the American Friends Service Committee to do famine relief work, supervising distribution of food in ten villages. When the famine work was completed, she lived a year in Moscow, getting a more thorough knowledge of the language, visiting factories, schools, institutions of various kinds, and many Russian homes. She returned to America in 1924, assisting in the campaign to raise funds for the Russian Reconstruction Farms, an enterprise designed to teach modern farming methods to Russian peasants, and returned to Russia in 1926 to assist in the work of the Farms as translator and research worker.

Sonnichsen, Albert, was born in San Francisco, California, the son of the consul for Norway, Sweden, and Denmark. He graduated from the public schools and then entered newspaper work. He founded *The Coöperative Consumer*, a periodical which has now become *Coöperation*, and was one of the founders in 1916 of the Coöperative League of America. He has written a number of books, the latest of which is *Consumers' Coöperation*.

Stalin, Yosif, see pp. 245-252.

Tawney, Richard Henry, is Reader in Economic History at the University of London, a member of the executive committee of the Fabian Society, and a member of the Consultive Committee of the Board of Education.

He was born in Calcutta, India, in 1880, and received his education at Rugby and Balliol College, Oxford. He was Sometime Fellow of Balliol College, Oxford; was assistant at Glasgow University 1906-1908, was a teacher for Tutorial Classes Committee of Oxford University 1908-1914; was a member of the Coal Industry Commission in 1919, of the Chain Trade Board (1919-1922), and of the Executive Committee of the Workers' Educational Association (1905-1928).

During the war, he served in the army as a private and was severely wounded.

He is the author of *The Agrarian Problem in the Sixteenth Century*; *English Economic History, Select Documents*; *The Acquisitive Society*; *Studies in the Minimum Wage*; *The British Labour Movement*; and *The Rise of Capitalism*.

Thomas, James Henry, see pp. 627-628.

Thomas, Norman, see pp. 110-112.

Warbasse, Dr. James Peter, see pp. 534-536.

Webb, Beatrice, the wife of Sidney Webb, has been prominent in the Labor Party in Great Britain. She has been a member of the Poor Law Commission (1905-1909), of the War Cabinet Committee on Women in Industry, of the Committee on Machinery of Government, and of the Lord Chancellor's Advisory Committee for Women Justices. Besides having written several books in her own name she has been coauthor with her husband of twenty volumes, including the *History of Trade Unionism*.

Webb, Sidney James, is a Member of Parliament, a Barrister-at-Law, and an author. He is a member of the faculty and Board of Studies in Economics, University of London, and was Lecturer on Political Economy at the City of London College and Working Men's College. He has been a member of the Fabian Society since 1885.

He was born in London, July 13, 1859, and received his education in Switzerland and Mecklenburg-Schwerin, City of London College, Birkbeck College, and King's College.

He has been clerk in the War Office, 1878-1879; assistant-surveyor of taxes, Inland Revenue, 1879-1881; clerk of the Colonial Office, 1881-1891; and a member of the London County Council, 1892-1910.

He was Professor of Public Administration at the London School of Economics, University of London, 1912-1927; and has served as a member of the Royal Commission on Trade Union Law, a member of the Senate of the University of London, a member of the Royal Commission on the Coal Industry, and as president of the Board of Trade.

He is the author of *History of Trade Unionism*; *Industrial Democracy*; *English Local Government*; *Prevention of Destitution*; *Works Manager Today*; *A Constitution for the Socialist Commonwealth*; *Decay of Capitalist Civilisation*; and many others.

Withers, Hartley, an English author, was born on July 15, 1867, receiving his education at Westminster and Christ Church, Oxford.

He was assistant-master of Clifton College in 1890 and a Stock Exchange clerk from 1891-1893; entered the city office of the *Times* in 1894; became city editor of the *Times* in 1905 and held that office until 1910, when he became city editor of the *Morning Post*. In 1911, he entered the employment of Seligman Brothers. He was the director of Financial Enquiries in the Treasury (1915-1916); from 1916 to 1921 was the editor of the *Economist*; and from 1921 to 1923 was editor of the *Financial Supplement of the Saturday Review*.

He is the author of *The Meaning of Money; Stocks and Shares; Money-Changing; Poverty and Waste; War and Lombard Street; International Finance; Our Money and the State; The Business of Finance; War-Time Financial Problems; The Case for Capitalism; Bankers and Credit; Hints about Investments; and Money*.

Young, Owen D., was born in New York state in 1874. He began the practice of law in Boston in 1896, and moved to New York in 1913 as counsel for the General Electric Company. Since 1922 has been chairman of the board. In addition, is chairman of the board of The Radio Corporation of America, and Director of the International General Electric Company. In 1922 he was a member of the President's Industrial Conference. Mr. Young has taken a prominent part in the various reparation conferences and was Chairman of the Conference which resulted in the "Young Plan" for reparations. He is universally considered one of the most outstanding business leaders in the United States.

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